



# HOUSEHOLD FOOD WASTE

## About myths surrounding household FLW

What do we (think we) know about FLW behaviour at household level?

# INTRODUCTION



# THE SIX HOUSEHOLD MYTHS

Today we will be addressing the elephant in the room and separate fact from fiction...

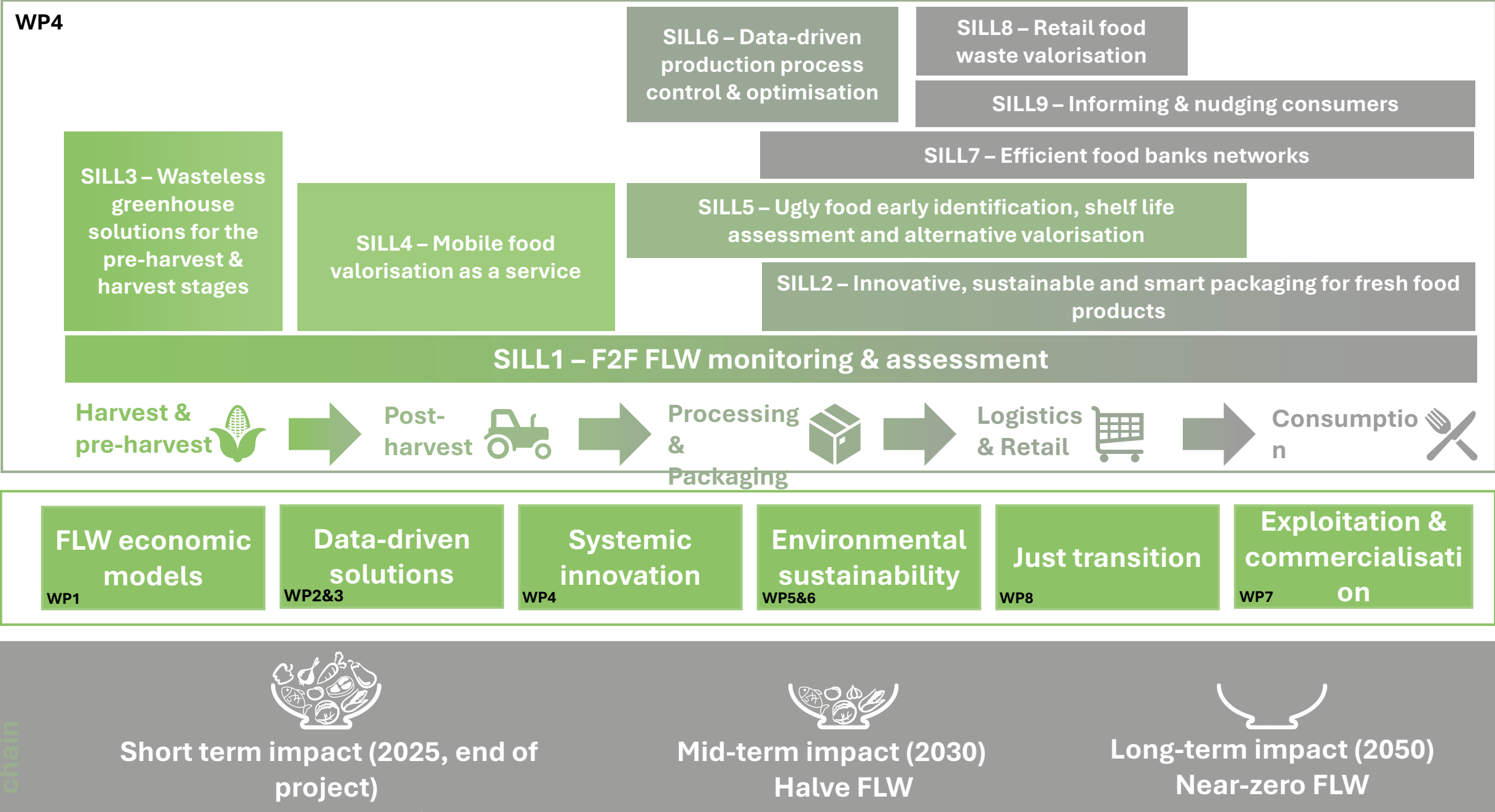
Myth 1	The Informed Consumer
Myth 2	Menu Magic
Myth 3	Something Fishy
Myth 4	Careless Consumer
Myth 5	Finishing What You're Given
Myth 6	Good Provider Identity



# ZeroW

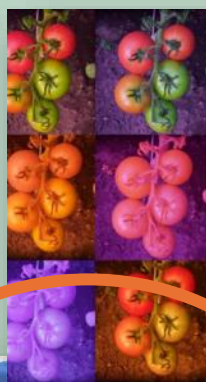
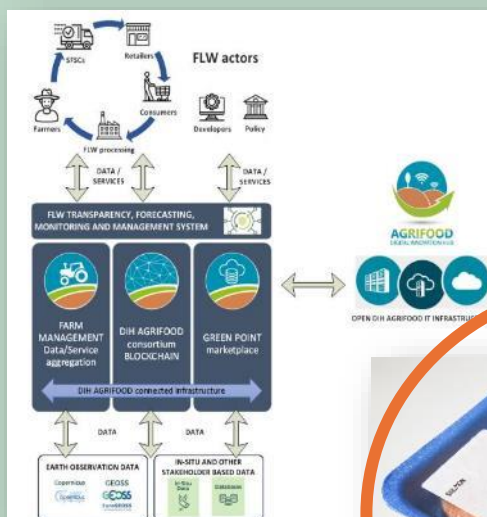
A just transition towards a  
near zero FLW system

Impact = Assessment + Demonstration along value chain



# ZeroW Systemic Innovations Living Labs

All SILL's solutions will be exploited after the project completion



# About Systemic Innovation Living Lab (SILL) 9

- Reducing FLW at consumer level
- Consumers might be still unaware of the FLW consequences
  - *Create a Food Label to inform consumers*
- Provide consumers with weekly recipes that reduce their food waste and impact
  - *From approximately 38 grams food waste per person per day (dinner) to significantly less grams food waste*

# TEAM

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# #1 THE MYTH OF “The Informed Consumer”

Consumers weigh nutritional values, environmental impacts (e.g., greenhouse gas emissions), and food waste equally when making food choices, in case they have clear information available to them.

# Labels approach

- Combining in one label:
  - Nutritional values (Open Food Facts Dataset)
  - Greenhouse gas emissions (National Institute of Public Health and Environment)
  - Food waste at consumer level (Netherlands Nutrition Centre)

# Labels approach

- Food score
  - Strict
  - Relative
  - Balance



Strict:



Relative:



Balance:



Strict:



Relative:



Balance:



# Labels Approach

- Questionnaire:
  - 61% consciously bought, occasionally, sustainable food in the past
  - 82% find it important to have information on food waste in a food label
  - 52% found relative label most understandable, followed by 30% balanced and 18% strict
  - 75% think they would reduce their food waste due to the label
  - 84% would more likely buy food in case our label indicates the product to be good
  - However, nutritional values is most important to customers, followed by the impact on the environment by 90% of respondents



**MYTH**

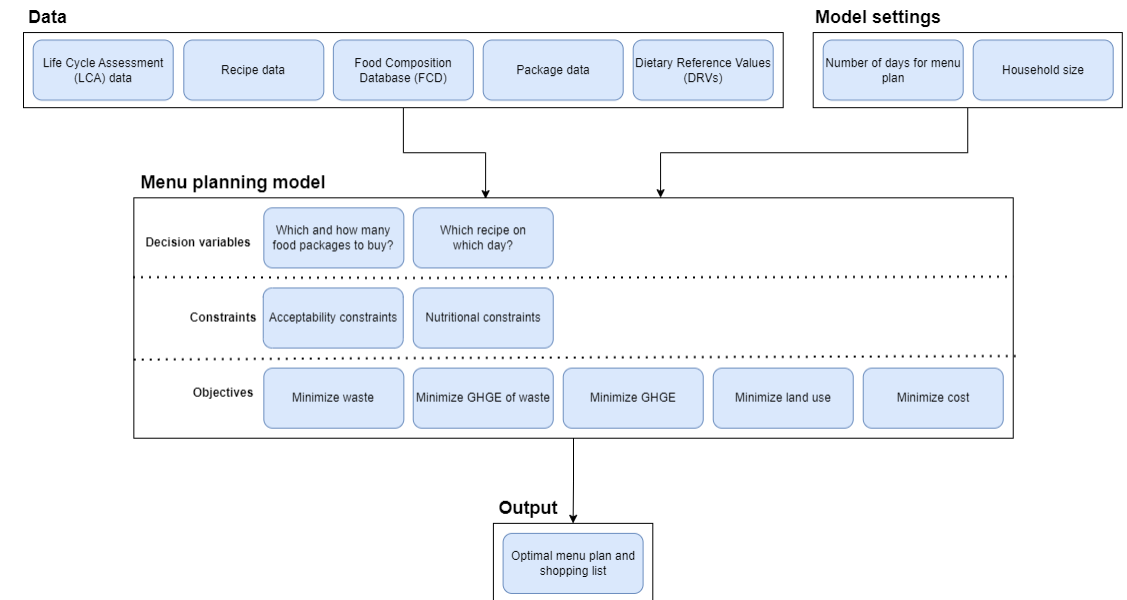


# #2 THE MYTH OF “Menu magic”

Meal planning is time-consuming and unnecessary;  
buying ingredients as you go is just as efficient.

# Meal planning approach

- Poor planning is a reason of household food waste
- Formulate menu plans and shopping lists by selecting combinations of recipes based on retail package sizes to minimize:
- Food waste, Greenhouse gas emissions, costs



# Example

- Menu plan

Meal plan A	
Day 1	Kruidige rijst met tofu en abrikozen
Day 2	Linzensalade met walnoten en rucola
Day 3	Bulgur met groente, tofu en noten
Day 4	Notenrijst met aubergine

Estimated impact – meal plan A	
Greenhouse gas emissions	1412.64 grams CO2 eq
Waste	2 grams
Cost	2.47 euro

Shopping list - meal plan A			
Package name	pack_br_gr	price_unit	buy
AH Aubergine	400	1.39	4
AH Chinese kool	780	1.69	2
AH Linzen	400	1.35	2
AH Cherrytomaten	250	1.09	2
AH Radijs	100	0.99	2
AH Rucola	85	1.09	2
Vivera Gerookte tofu	200	2.09	2
AH Gedroogde abrikozen	250	2.99	1
AH Basis vloeibaar	750	1.99	1
AH Tomatenblokjes gesneden	400	0.69	1
AH Biologisch Volkoren bulgur	400	1.39	1
AH Zilvervliesrijst	1000	1.85	1
AH Walnoten ongebrand	500	7.39	1
AH Rozijnen zongedroogd	750	1.95	1
AH Wokgroente Chinees	400	2.39	1
AH Wokgroente Japans champignons peultjes	400	2.49	1
AH Ongebrande cashewnoten	500	6.19	1
AH Natuurazijn wit	1250	0.45	1
AH Pijnboompitten	150	7.48	1
AH Olijfolie mild	1000	6.59	1
Coppelia Zonnebloemolie	2000	7.49	1
AH Uien	2000	1.79	1
AH Verse geitenkaas naturel 45+	125	1.99	1
AH Biologisch Vegan tofu naturel	375	1.49	1



# Example



Day 1



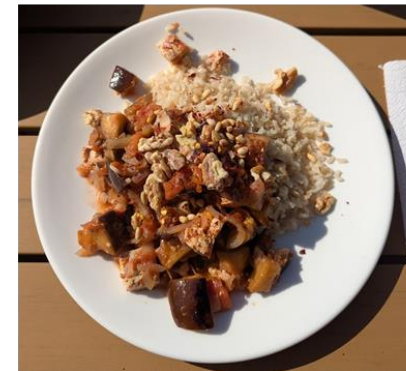
Day 2



Day 3



Day 4





**MYTH**



# #3 THE MYTH OF “Something fishy”

Despite all the good intentions, consumers will always  
trust their nose over other types of information

# Innovative packaging

- During a live consumer event in the hall of the ARTEA hypermarket in Spain, consumers assessed new sustainable packaging that indicates food freshness via colorisation



# Our findings...

- The primary reason for food waste, as indicated by 43% of respondents, is that the food looks or smells bad. Expiry date concerns and uncertainty about food safety each account for 19% of responses



FACT



# Take-aways and future outlook

- Our primal intuitions are hard to overrule with more cognitive information
  - How can the sustainable packaging meet our intuition as much as possible? E.g. test different colour schemes
- Food planning is useful to prevent food waste and lower costs.
  - Food planning tips should provide flexibility, e.g. changing an ingredient to prevent to need to buy extra



# CHORIZO

Changing practices and Habits through  
Open, Responsible, and social Innovation  
towards Zero food waste



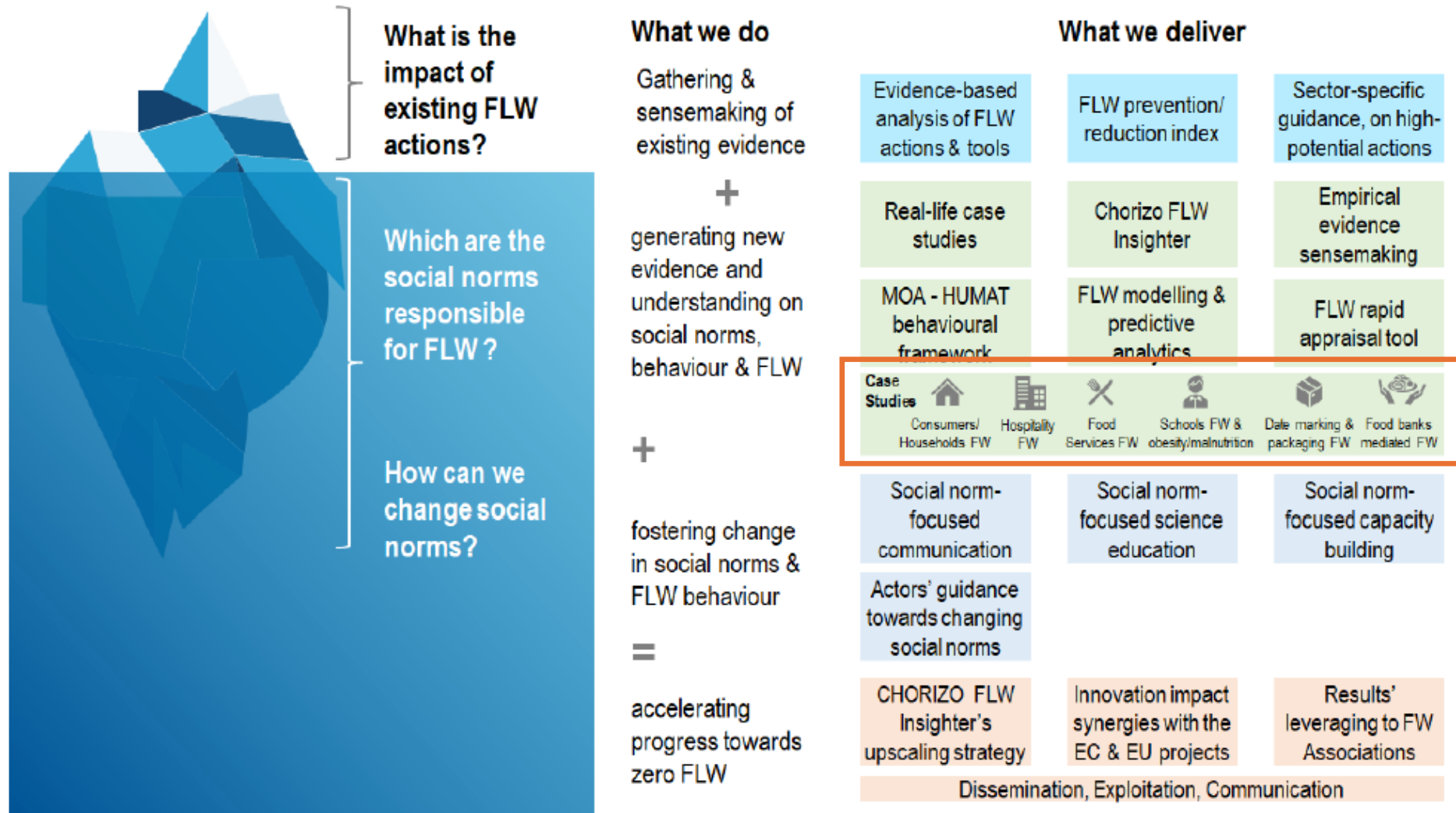
# What are Social Norms?

**Unwritten rules** about how people behave in society or groups.

## Two types:

- **Descriptive norms** – *what people do*
  - Example: “Most households throw away leftovers.”
- **Injunctive norms** – *what people should do*
  - Example: “It is wrong to waste food.”

# About the project



# About the Case Studies

## Case Study 1

Household food waste in and off crisis periods

## Case Study 2

Hospitality food waste

## Case Study 3

Food services food waste

## Case Study 4

School food waste and relation with obesity and malnutrition

## Case Study 5

Food waste in a food bank's mediated supply chain

## Case Study 6

Food waste in relation to date marking and sustainable smart packaging





# #4 THE MYTH OF “Careless Consumers”

Most people waste food because they just do not care

## Our findings

- Most people are motivated to reduce food waste
- However, food waste is the results of a complex interplay of different factors
- Intention-behaviour gap
- Motivation-Opportunity-Ability framework as a conceptual framework to include both individual and external/social factors



**MYTH**



# #5 THE MYTH OF “Finishing What You’re Given”

Children should always finish what’s on their plate

# Our findings

- 1/5 people in Flanders still agree that children should always be required to empty their plate
- Linked to overeating
- Shows cultural dimension of social norms
- Temporal differences: social norms are not fixed, but can change in different settings and over time





**MYTH**



# #6 THE MYTH OF “Good Provider Identity”

In many cultures, serving plenty of food is seen as a sign  
of being a good host or caregiver.

# Our findings

- Widespread & deeply-rooted social norm
- Caring = providing ***plenty*** of food
- Linked to overbuying and overpreparing → increased FW
- Challenging the idea that more food equals more care



FACT



# Take-aways: behavioural change and social norms in households

- Social norms within the household context matter
- Norms are dynamic
- Some norms are deeply rooted
- Change requires more than awareness
  - Also strengthen people's abilities (skills, planning, portioning, storage)
  - And creating opportunities (tools, infrastructure, supportive environments) that make sustainable choices easy and natural.

# THE SIX HOUSEHOLD MYTHS... OR FACTS?

Myth 1	The Informed Consumer	MYTH
Myth 2	Menu Magic	MYTH
Myth 3	Something Fishy	FACT
Myth 4	Careless Consumer	MYTH
Myth 5	Finishing What You're Given	FACT
Myth 6	Good Provider Identity	MYTH

# Your ideas

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