Simulating FW reduction interventions in relation to social norms

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24/10/2024, Consumer FW prevention sub-group

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

CHORIZO PROJECT

CHORIZO aims to enhance the understanding of the relationships between **social norms, consumer behaviors, and economic actor decisions** in relation to FW generation, and to use this knowledge to improve decision-making and engagement among food chain actors, with the goal of **achieving zero Food waste**.

DURATION:
36 MONTHS

14 PARTNERS
9 COUNTRIES

Objectives

What is the impact of existing FLW actions?

Which are the social norms responsible for FLW ?

How can we change social norms?

RESEARCH

Increase knowledge

Understand why the impacts of previous actions occurred

Generate new evidence

Understand how social norms influence FW behaviours

ACTION

Foster change

Design more effective FLW actions

Change social norms towards zero FLW

An operational definition of social norms

People are influenced by what other people **do** and **think**. Individual tend to conform to gain others' approval.

Social norms are rules/guides for actions perceived by individuals aspiring/belonging to the norm's target group.

An operational definition of social norms

Prevalent behaviour observed, individuals perform the normative action because of its perceived effectiveness. This type of social norm is related to **observability.**

A social norm can have a **descriptive character** or an **injunctive character**

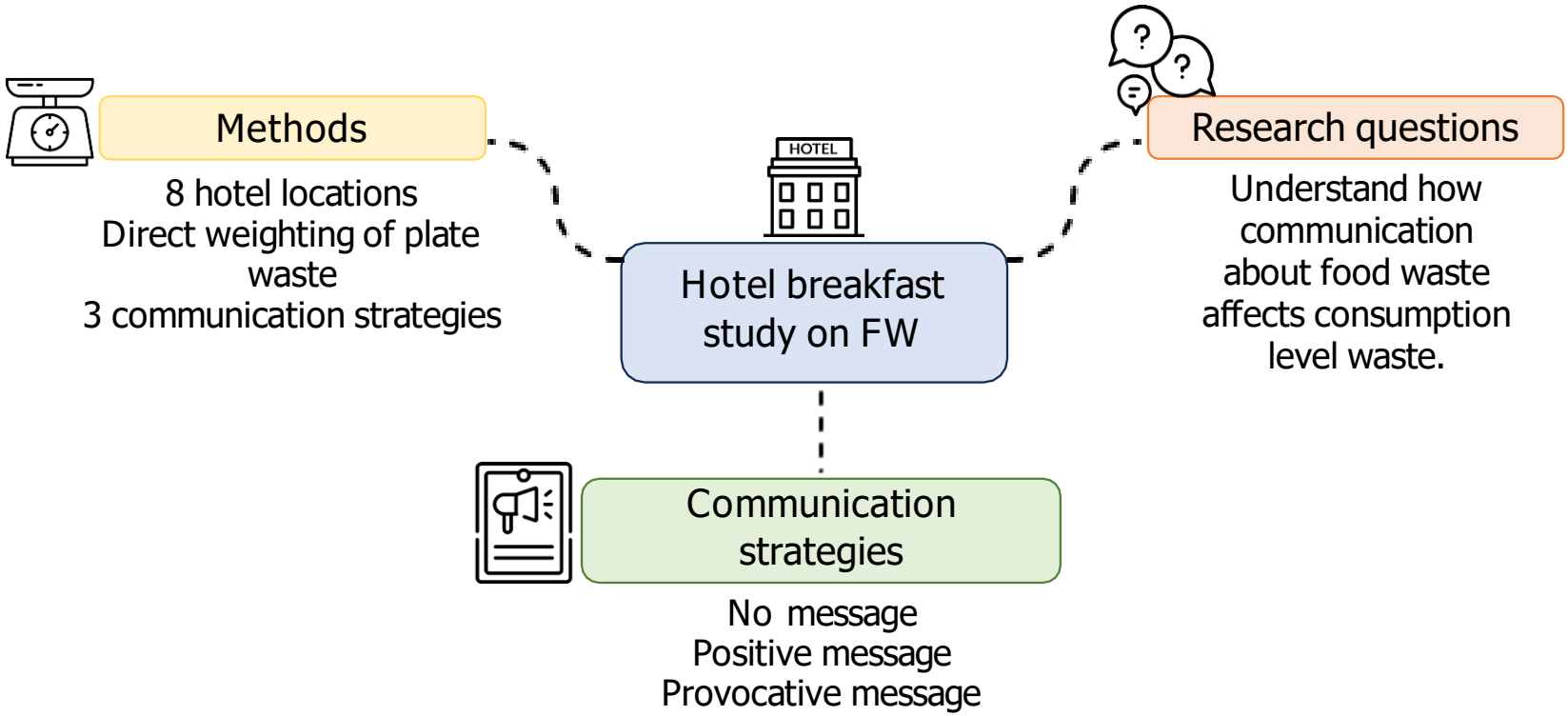
Perceptions about the normatively appropriate action in a specific context; what kind of behaviour is approved or disapproved by others.

Social norms as system change drivers

1. Social norms shape individual **perceptions and attitudes** towards wasting food
2. Social norms influence the behaviour of individuals in social settings
3. Social norms can also affect the behaviour of businesses, organizations, and policymakers

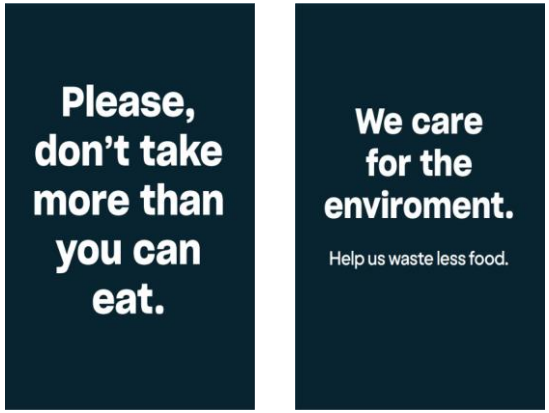
Hotel experiment

CS2 – NORCE and Strawberry



Hotel experiment

Positive messages



Provocative messages

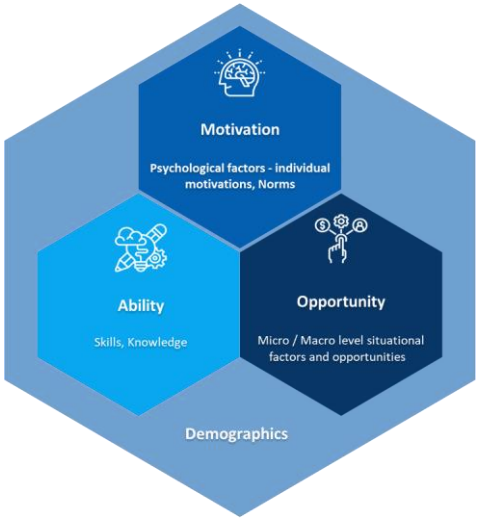
Predictive analytics & modelling backbone for changing social norms towards 0FLW

Aim is to develop a **model to understand and predict** the relation between social norms, business practices, consumer behaviour and Food waste.

The Establishment Diner model

Agent-based simulation that represents the **dining behaviour** of individuals in a commercial establishment.
The model studies the interaction of a **population** that have access to a buffet.

Predictive analytics & modelling backbone for changing social norms towards 0FLW

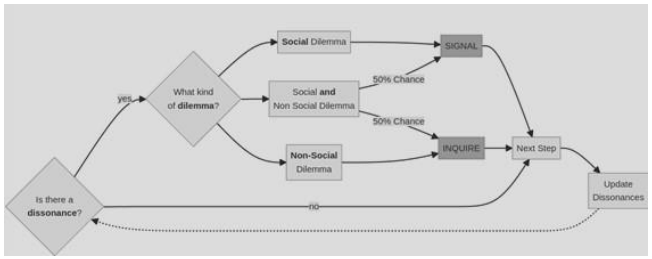


The MOA describes the behaviour of an individual basin on its motivation, opportunitiesand abilities.

An **agent-based model** (**ABM**) is a computational model for simulating the actions and interactions of autonomous agents: both individual as in our case or collective entities such as organizations or groups.

ABM are built from the bottom up meaning individual agents are assigned certain attributes.

The final aim is to understand the behavior of a system and what governs its outcomes.



Humat is a dynamic model that aims to understand why agents make decisions by analysing individual motives (experiential needs, social needs, values needs) that an agent wants to fulfill.

Scenario development and simulation

Plate size (N/L)

Intervention

Guest composition (share of business and non-business guests)

Sustainability awareness

Communication strategy

Intervention

Developed scenarios:

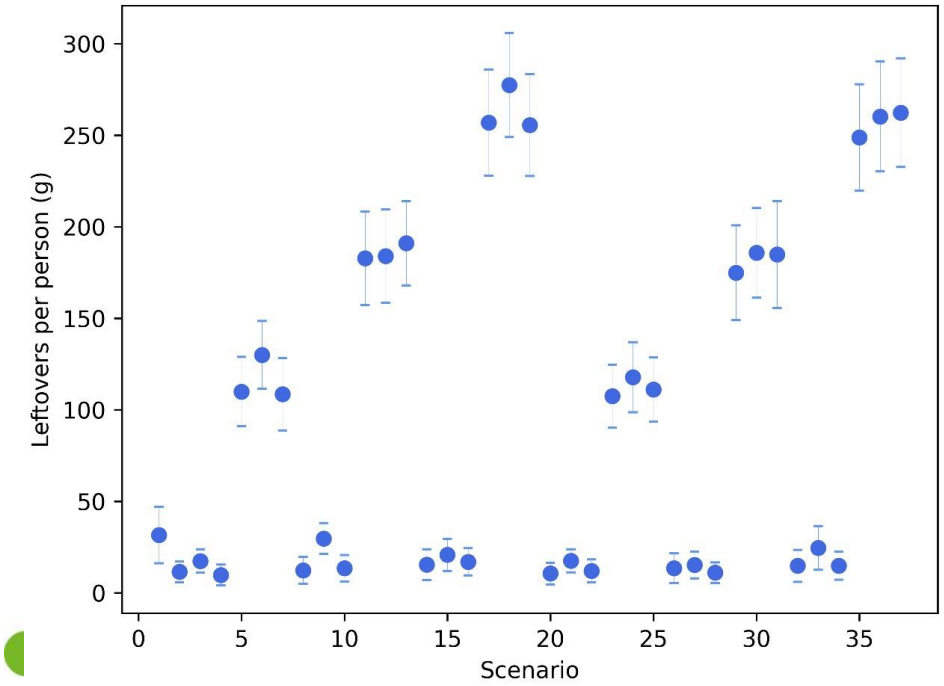
Explore various normatively focused communication strategies

Simulate the implementation of social innovations in additional contexts or on different population groups

Consider different combinations of FLW reduction actions and social innovations and analyse their combined effect

Scenarios preliminary results

The level of guests' sustainability awareness has a paramount influence on FW



FW amounts of scenarios with low sustainability awareness are higher and more diverse

All scenarios with high sustainaiblity awareness produce less FW

Scenarios preliminary results

Guest composition
(share of business and non-business guests)

Business guests have an higher level of conformism =
they tend to be influenced more by others (social norm)

Comparing scenarios with different share of business and non-business guests shows that when business guests are predominant there is less FW

FW reduction interventions should target «leisure» travelers,
whose behavioral drivers need to be further investigated

THANK YOU FOR YOUR ATTENTION!