



INVESTIGATING THE DETERMINANTS OF GREEKS' FOOD WASTE PREVENTION BEHAVIOR

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How sustainable is current development ;



In 2017, 821 million people (10.7% of the world population) were suffering from chronic


undernourishment (FAO 2018)



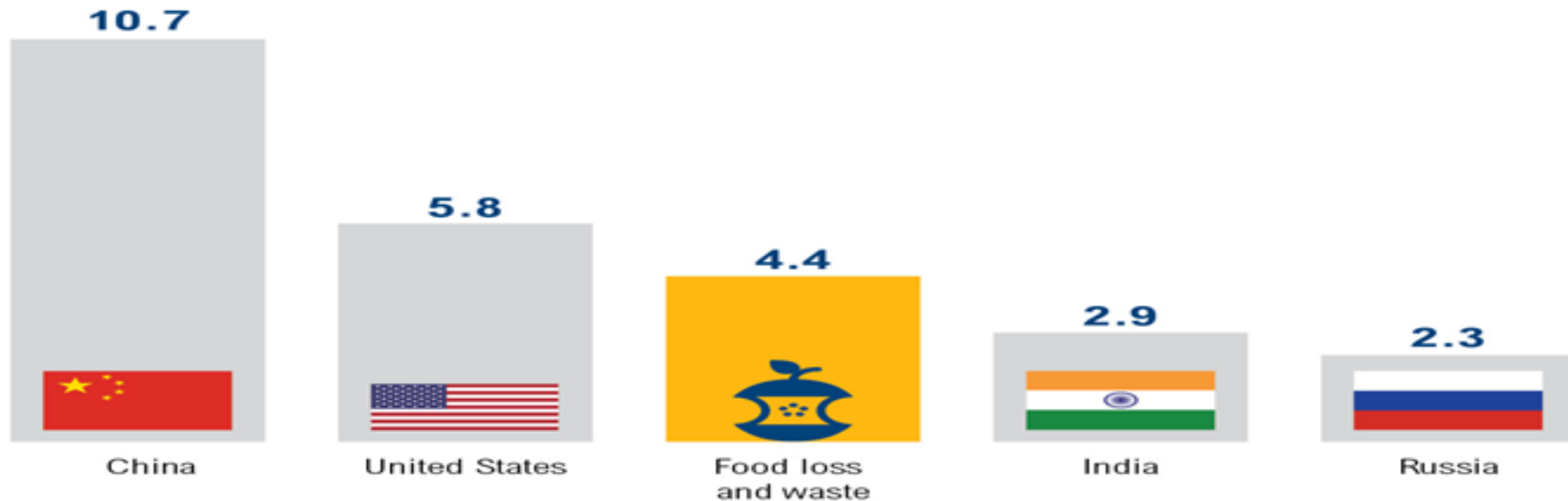
1/3 of all food produced for human consumption is lost or wasted globally (FAO, 2014)

=
1,3 Mt

This amount of FLW represents a huge quantity of wasted resources:

- 1.4 billion hectares of agricultural land (FAO, 2013) or 30% of the world's agricultural land area (FAO, 2013) 
- 250 km³ in 2007 or 20 % of fresh water consumption (FAO, 2013) 
- 4.4 GtCO₂ or about 8 % of global anthropogenic greenhouse gas (GHG) emissions (FAO, 2015) 
- 38 % of the total energy consumption of the food

Only considering CO₂ emissions, if FLW were a country, it would be the third major emitter on Earth (FAO, 2013)



GT CO₂E (2011/12)*

* Figures reflect all six anthropogenic greenhouse gas emissions, including those from land use, land-use change, and forestry (LULUCF). Country data is for 2012 while the food loss and waste data is for 2011 (the most recent data available). To avoid double counting, the food loss and waste emissions figure should not be added to the country figures.

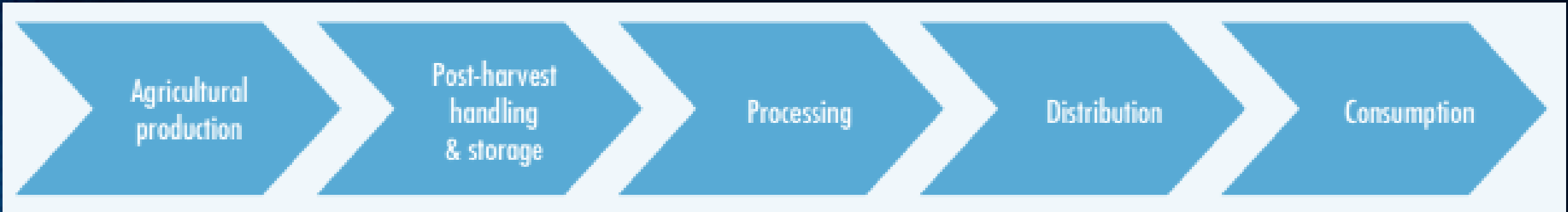
Source: CAIT, 2015; FAO, 2015. *Food wastage footprint & climate change*. Rome: FAO.



WORLD
RESOURCES
INSTITUTE



FLW is defined as a reduction in mass of the edible food items produced for human consumption (FAO, 2011). It takes place at each stage of the food supply chain (FSC):



FL: the decrease in mass or nutritional value (quality) of food that was originally intended for human consumption

FW: food intended for human consumption being discarded or left to spoil as a result of decisions taken by actors along the food supply chain.

The precise boundary between FW and FL is somewhat arbitrary

- in EE-28 along the food supply chain (FSC), is wasted annually:

88 Mt/year
(FUSIONS, 2016)

**if no additional
prevention policies
are implemented**

**by 2020
126
Mt/year**
(Xu et al., 2018).

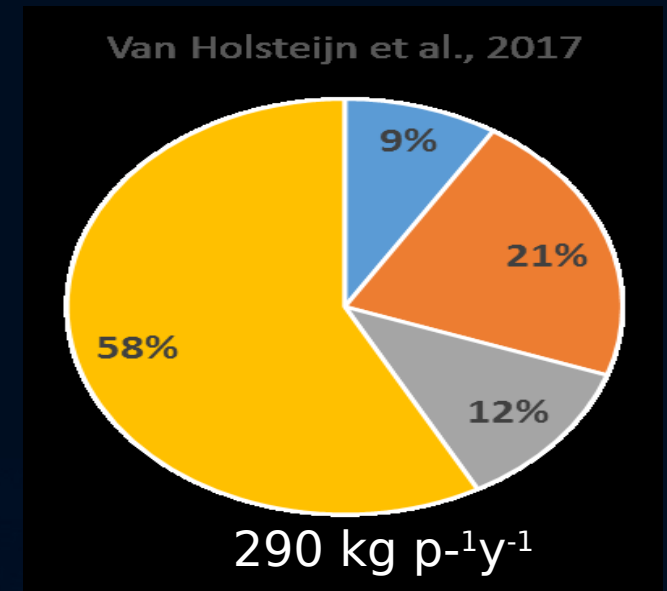
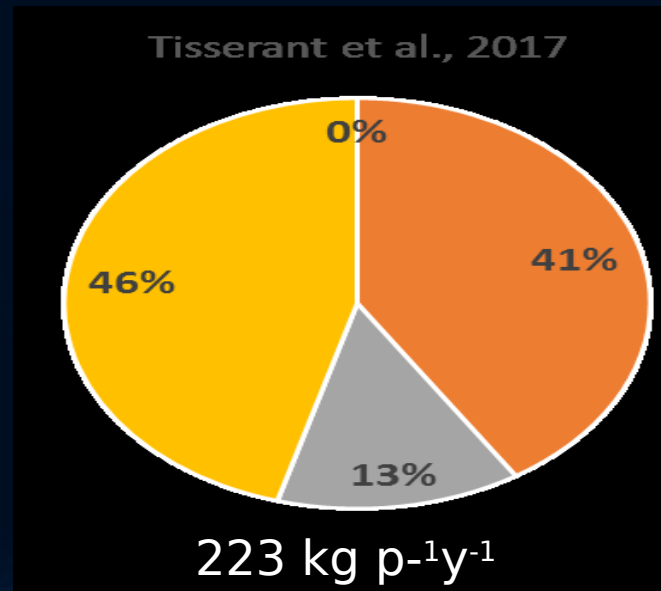
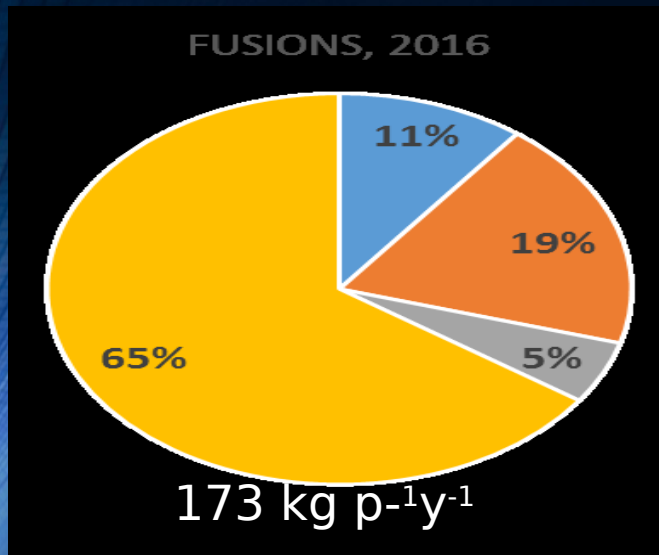
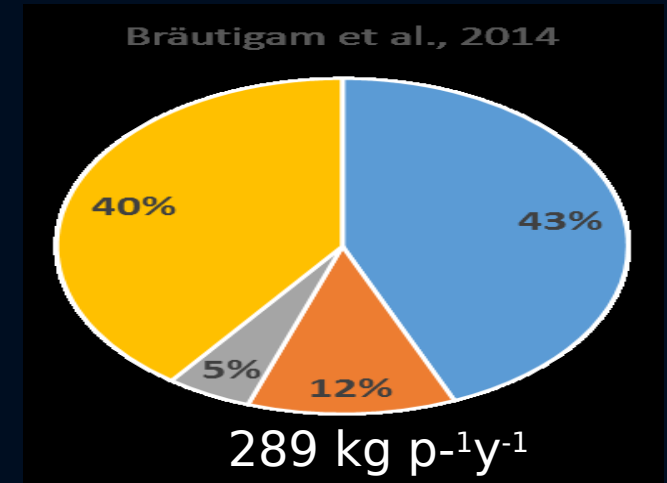
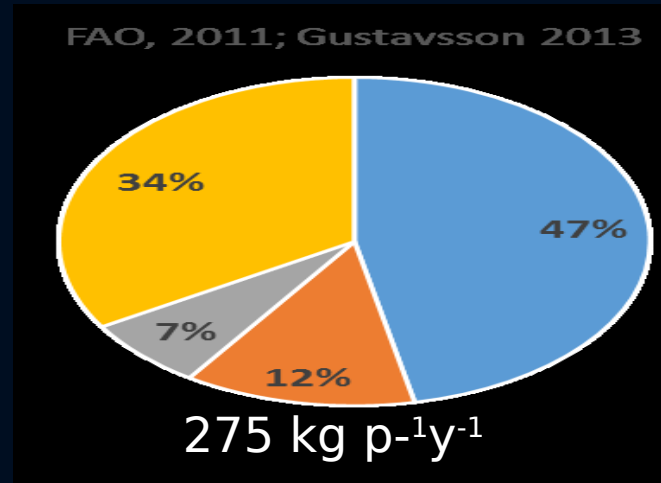
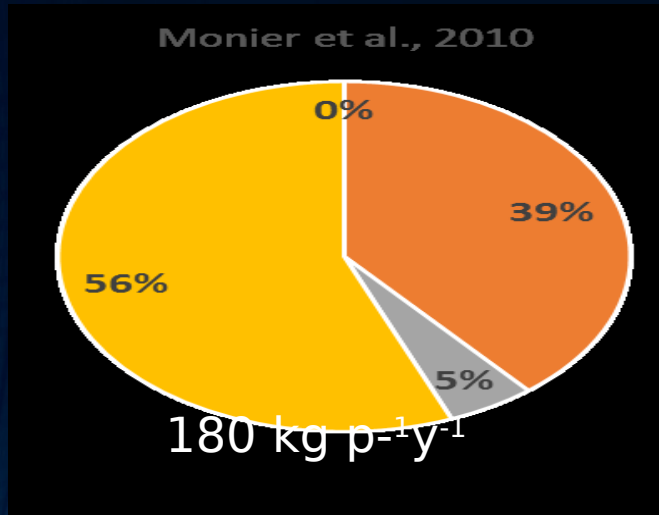




Target 12.3 calls to halve per capita FW at the retail and consumer level by 2030, and reduce FL.
Combating FW contributes to related SDGs such as zero hunger (SDG 2), economic growth (SDG 8) and climate action (SDG 13)

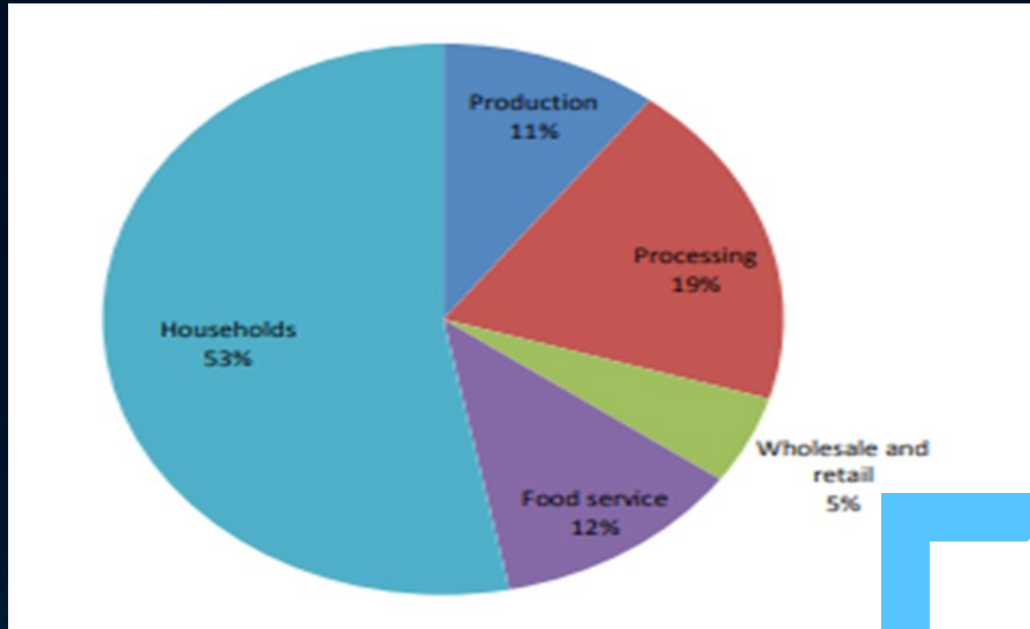
Total FW quantification

share of FW in each stage of the FSC at European level reported in different studies (EC,2017)



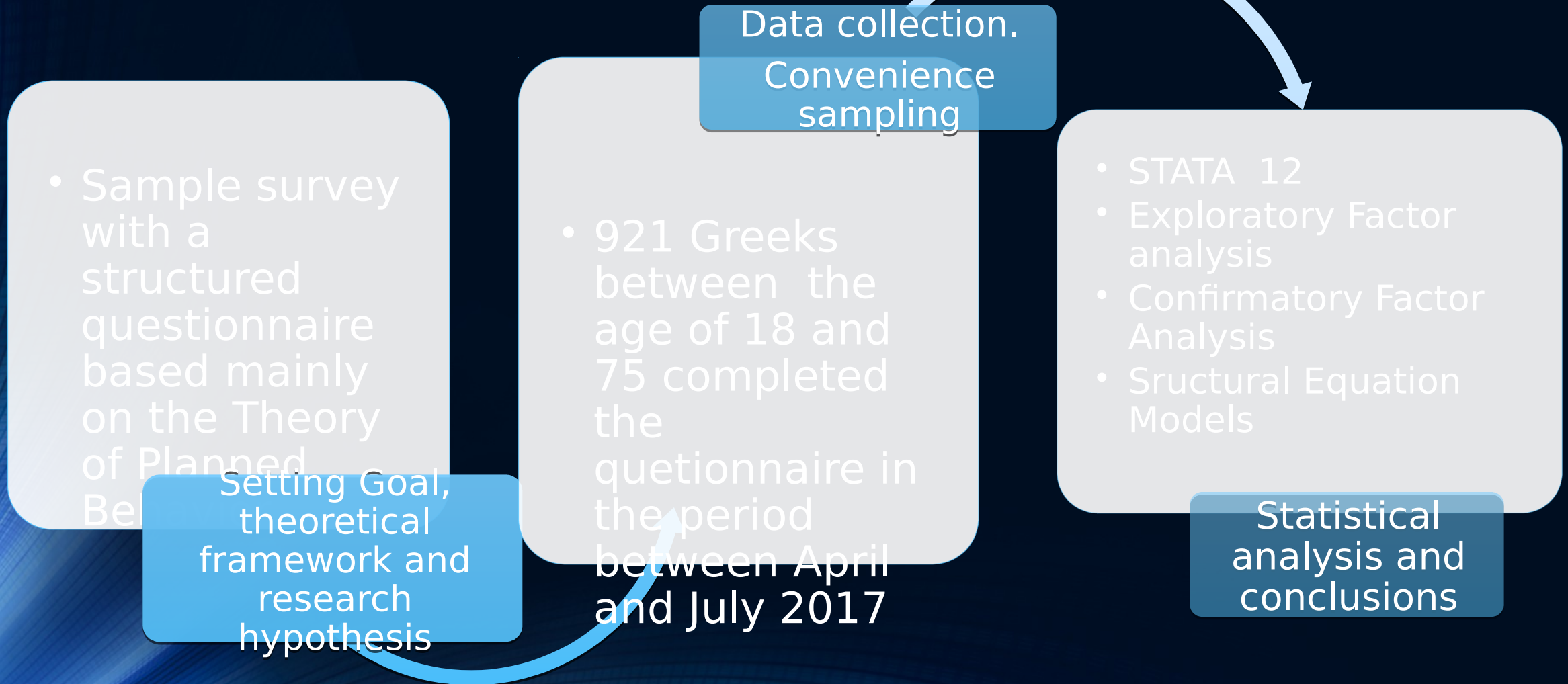
Primary production and post-harvest
Manufacturing

Distribution
Consumption



Over 50% of FW generated in the EU occurs at the level of households (FUSIONS, 2016)

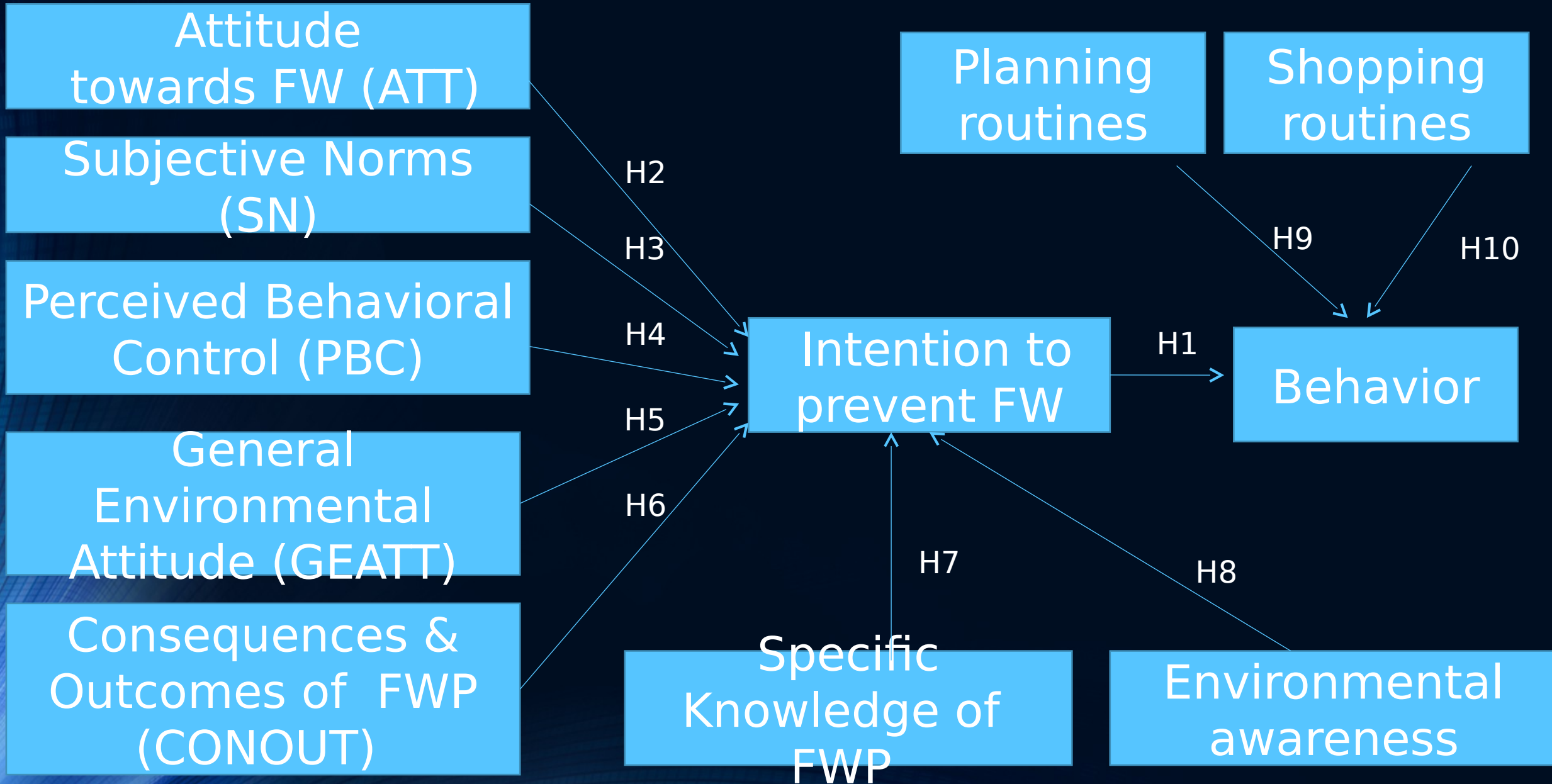
Which are most important determinants that influence the generation of household Food Waste in Greece?



Theory of Planned Behaviour (Ajzen, 1991)



The conceptual framework FW behavior.



Data were analyzed using Structural Equation Modeling (SEM) with the software of STATA 12.

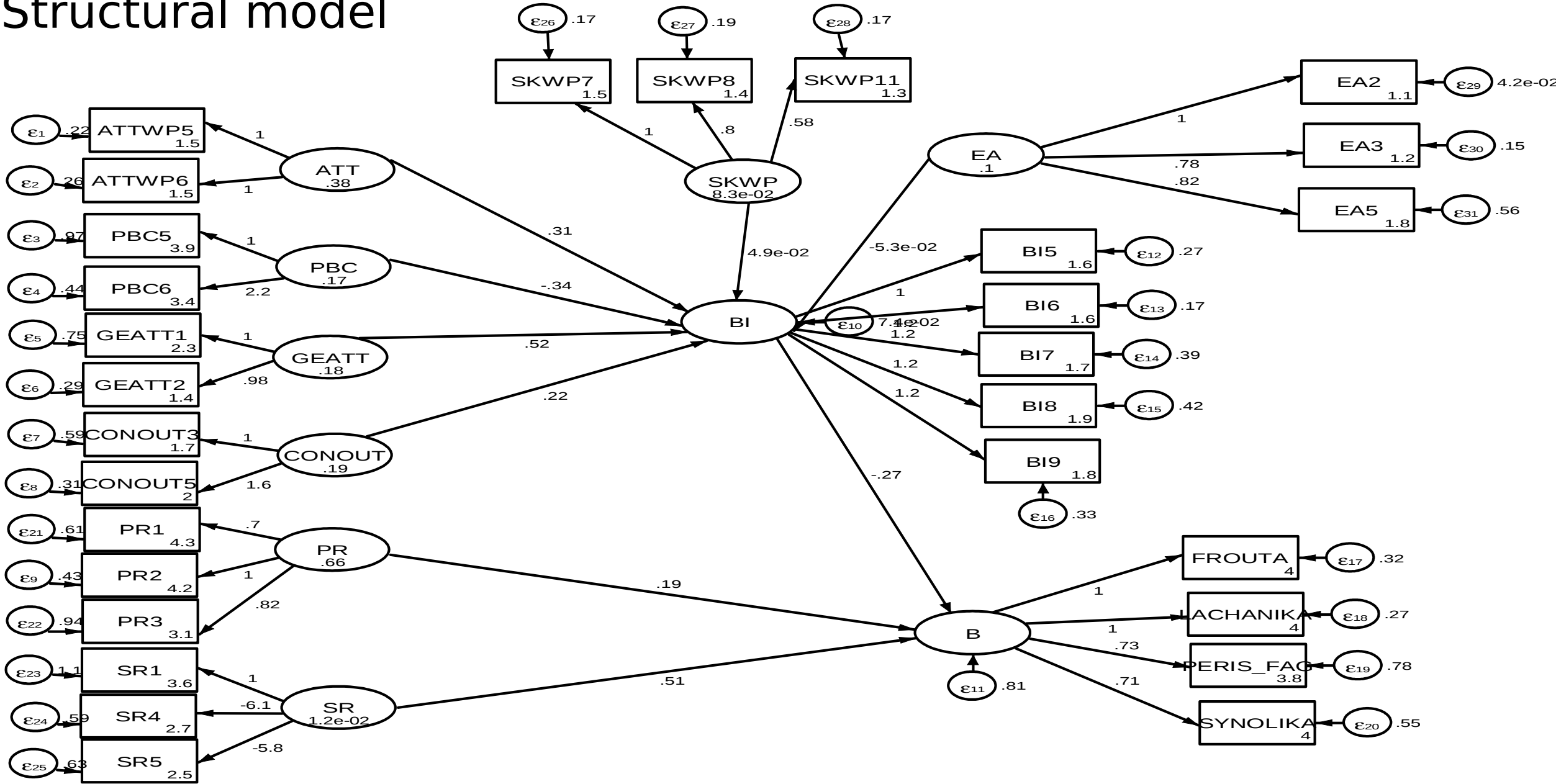
Through CFA the latent variable SN was eliminated because according to the indicators estimated, the adaptation of the model to the survey data was improved.

The lack of correlation between SN and FW prevention has been highlighted in previous studies (Graham-Rowe, Jessop & Sparks, 2014; Stefan, Herpen, Tudoran & Lahteenmaki, 2013).

FW has been established as a socially acceptable process because:

- there is no awareness of the quantities produced,

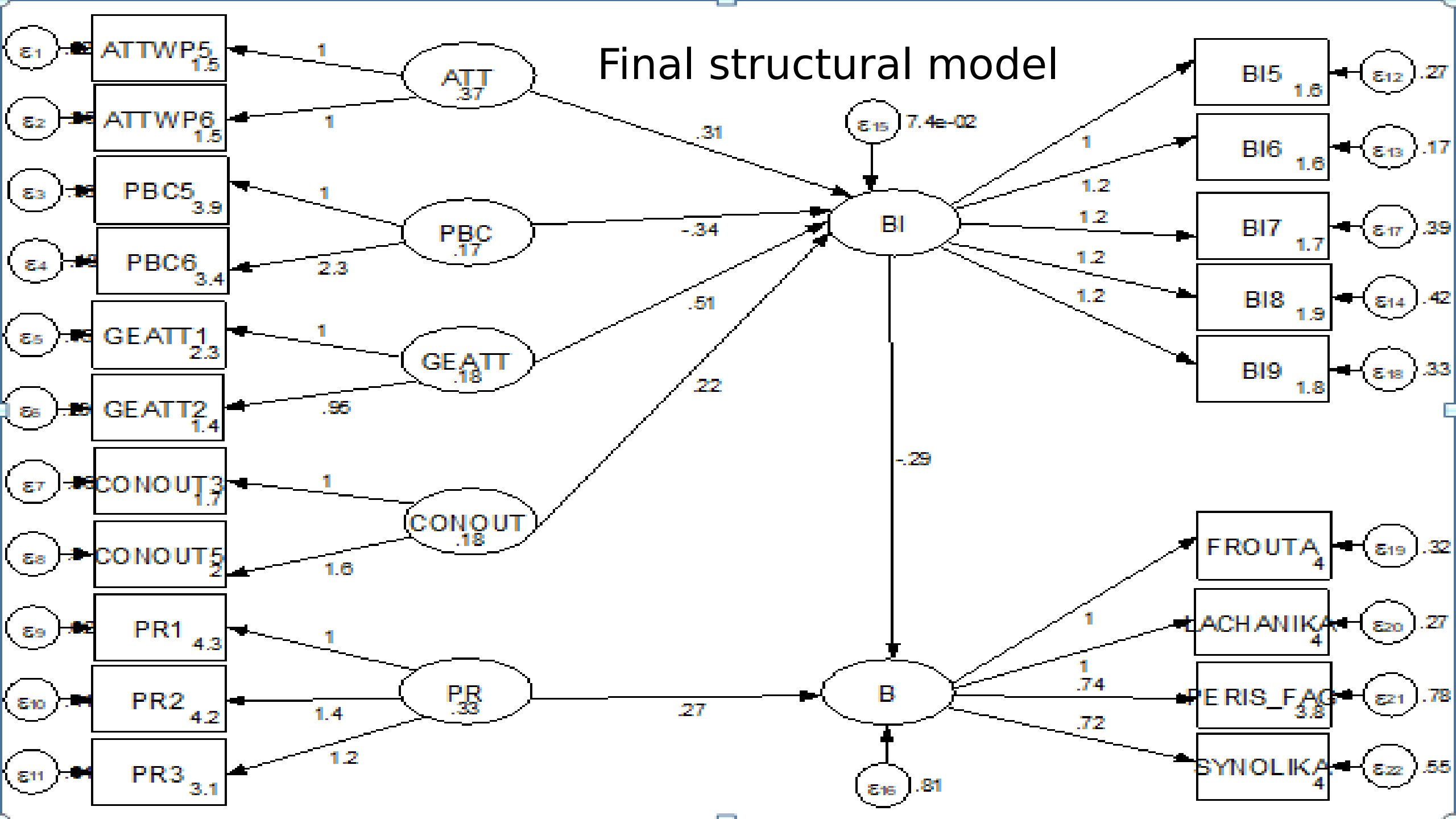
Structural model



Confirmed Hypothesis:

- H1: the greater the prevention intention the less self-reported FW generation ($\beta = -0.27$, $p = 0.001$).
- H2: the better the Attitude towards FW, the stronger the BI ($\beta = 0.31$, $p < 0.005$),
- H4: the stronger the PBC, the stronger the BI ($\beta = -0.342$, $p < 0.005$)
- H5: the better the General Environmental Attitude, the stronger the BI ($\beta = 0.521$, $p < 0.005$)
- H6: the more widely known and understood the consequences and outcomes of FW prevention the stronger the FW prevention intention ($\beta = 0.218$, $p < 0.05$).
- H9: Planning routines affect the quantities of FW ($\beta = 0.51$, $p < 0.005$)

Final structural model



Thank you for your
attention!!!