## Which factors impact households' selective biowaste sorting? An agenda for future behaviour change campaigns in Athens.

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## Abstract

**Purpose**: In a world with finite resources, biowaste should be considered as a source of raw materials by cities and municipalities. The bioeconomy aims to convert biowaste streams into valuable products such as food, feed, and biobased products. However, the uptake of the bioeconomy is dependent on an increased biowaste capture, which is conditional to the improvement of waste management systems, and on the participation of stakeholders, including households, in recycling schemes.

**Methods**: To better understand how to increase the participation of households of the Vari-Voula-Vouliagmeni Municipality (East Attica, Greece) in a newly implemented selective biowaste sorting scheme, a mixed method research design was conducted with a set of qualitative methods (expert interviews and focus groups) and quantitative methods (online survey). After a literature review of the most prominent behavioural determinants of households' selective biowaste sorting behaviour, the results of each research method are reported and integrated to provide a balanced and thorough understanding of the factors influencing households in the VVV Municipality to selectively sort their biowaste.

**Results**: The most significant factors for the households of the Municipality are the descriptive norm and perceived controllability associated with selective biowaste sorting.

**Conclusion**: We offer some reflection on these results and propose two tailored behaviour change strategies, namely persuasive communication, and behavioural modelling.

Keywords: Biowaste, sorting, households, behaviour, waste management