

Management of Organic Waste at DTU Lyngby Campus

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INTRODUCTION

Universities have ethical obligation to act responsibly towards the environment; they would be expected to be a leading player in the process towards environmental protection and recycling of resources. Determined in the Resource Strategy, DTU wants to recycle 40 pct. of the waste produced by 2015. As an educational institution where students spend the majority of their day, DTU has a high amount of waste production everyday, including food waste. At the moment, the food waste is incinerated together with all the domestic waste, even though the energy potential of organic waste is higher if it is used to produce biogas. This will require a sorting system, where the food waste is sorted out at the source, stored and transported separately. These additional processes will lead to higher CO₂ emissions during the handling process. To determine if segregation and recycling of food waste is feasible, a CO₂ assessment of a waste handling system where food waste is sorted out at the source and transported to a biogas plant needs to be completed.

METHODE

In this project, the focus is on S-huset and library, because those are the places where students spend a lot of time. Those places are expected to have a high amount of food waste production, because they are located close to the cantina. Moreover, if there is going to be implemented a sorting system in the library and s-huset, it will reach out to the students and have an impact in their behaviour towards sorting waste.

The aim with this project is therefore to characterize the domestic waste produced in the S-huset and the library in order to find the amount of food waste produced. Furthermore, the biogas potential in the organic waste is to be determined with a BMP test. This will be the background for a CO₂ assessment on a waste handling system where food waste is segregated and processed into biogas.

RESULTS

40% of the food produced in the S-huset and the library is food waste, which is equal to (insert amount of waste here). Based on the results from the characterization, we expect a sorting system to be feasible for S-huset and the library at DTU Lyngby Campus. Since the project is not ended yet, we can't make any conclusions.