Case Study 2 (stylized): Municipal Biowaste Management

A municipal waste management authority wants to develop long-term strategies for improving the environmental performance of their biowaste management. The biowaste consists of apples and bananas. Depending on the preferences of the citizens, the biowaste is treated via home composting (PW1) or via industrial biowaste treatment (PW2). The effects of five different strategies for improving the environmental performance of waste management shall be investigated (cf. Table 1). To model the long-term effects, datasets shall be adapted to anticipated changes in line with the 1.5 degree scenario as modelled in IMAGE for 2030 and 2050.

Table 1: Biowaste management strategies

Scenario-ID	Scenario Description
S1	Share of biowaste to home composting: 30% (default: 20%)
S2	Share of biowaste to home composting: 0% home composting (default: 20%)
S3	Industrial Biowaste Treatment: 100% anaerobic digestion (default: 50%)
S4	Industrial Biowaste Treatment: 100% industrial composting (default: 50%)
S5	Reduced transport distance to industrial biowaste treatment: 10 km (default 100 km)