


# Anticipating the location of a waste collection point: an application based on Portugal

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**Abstract** We study the optimal location of a waste facility in a horizontally differentiated duopoly where firms choose their location and price. The policymaker decides the location of a waste facility targeting social welfare maximization. Consistent with the observation of the location decisions of waste facilities in Portugal, we show that the optimal location of a waste facility is never in the city center under partial ex-post regulation. Ex-ante regulation ensures the highest level of social welfare, but from a theoretical point of view, it requires a waste facility located in the city center. A robustness check is then provided to justify that, in actual regulatory practice, a first-mover regulator maximizes social welfare without necessarily imposing the installation of a waste facility in the city center.

**Keywords** Waste management · Spatial competition · Location · Waste collection point · Price competition

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