UK - Northstowe Innovative Waste Collection Project - in association with WRAP

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FTC is on the WRAP framework to “Support the Delivery of Advice on the Prevention, Collection and Recycling of Municipal Waste”. FTC’s Waste Division was engaged by WRAP (Waste and Resources Action Programme) in the UK to provide support to Cambridgeshire Horizons and South Cambridgeshire District Council in the investigation of an innovative waste collection system for the proposed Northstowe development, 10km to the north-west of Cambridge. FTC’s remit was to review, evaluate and recommend the optimal method(s) of collecting domestic and commercial waste.

The proposed site covers a total of 605 hectares and includes residential developments, retail premises, educational facilities, transport infrastructure and a waste recycling centre. From its inception Northstowe is expected to be a low-carbon development, with the knowledge learned being applied elsewhere in the region.

The Northstowe exemplar project offers a unique opportunity to embed waste management infrastructure into the fabric of the urban environment. In this project, a balance between innovation and practical constraints, conventional practice and sustainability aspirations was required. There is an opportunity to design a waste collection and processing system that will minimise carbon emissions and reduce the overall space required for waste infrastructure. In line with the development being sustainable, it is key that it also facilitates recycling and recovery of household and commercial waste.

FTC provided technical advice in order to recommend the most appropriate waste collection system for Northstowe which saves space, minimises capital and operating costs, reduces greenhouse gas emissions and maximises the recycling and recovery of material.

The project was divided into two phases. During the first phase, FTC scientists reported on the results of research carried out into potential waste collection systems that could be used to collect domestic and commercial waste at Northstowe. An overview of potential collection systems was provided. The applicability, advantages and disadvantages of each option was described in relation to their use at Northstowe.

During the second phase of the project, FTC scientists carried out a detailed assessment of three short-listed collection options. A complete assessment of each collection option was carried out including capital and operating costs, carbon footprint, capture rates, diversion rates, impact on users and space requirement.

FTC provides targeted, specific support to local authorities and private waste collectors throughout the UK to assist them in achieving real, measurable improvements in performance in the prevention, collection, reuse, and recycling of municipal wastes. Key to our success has been our appreciation of local factors, in the context of current service delivery practices, current performance, local socio-economic, political and geographical characteristics.