

Waste Market Analysis

Juniper has been analysing waste markets, assessing opportunities and advising on market trends for nearly **twenty years**. Much of this work has been international in nature.

Because our work has been conducted on behalf of a wide range of clients, including **waste management companies, financial institutions, corporate investors** and **venture capital funds**, our perspective on the key parameters is broad. Our analysis is typically **'bottom-up'** rather than 'top-down': our databases hold comprehensive information about existing infrastructure and planned new projects. From this we develop a project-specific model that reconciles changing patterns in demand to evolving market capacity to derive a series of **'what-if' scenarios**, and thus advise our client on confidence levels, market risk and the extent to which the Business Plan is underpinned by fundamental demand.

Juniper has a detailed knowledge of **market dynamics** within the waste management sector. We are recognised as **one of the leading analysts of market trends** within the field and, as such, are invited to deliver keynote presentations at major international conferences around the world.

We have completed nearly 100 client-specific market analyses in this sector over the last 17 years – 20 of which are summarised on the attached Project List to give a sense of the breadth of our work: from **project-specific Due Diligence reviews of local market demand**; through **Independent Assessments of global growth** in a number of specific market sectors as part of assessing the robustness of Business Plans in relation to planned equity investments; to **pan-European market studies** for a range of corporate clients from Japan, North America, Australia, the UK and Continental Europe.

The scope of our reports has obviously varied. The broader based market studies have been typically focused on analysing **market drivers, assessing the size of the opportunity in each country market, reporting on market trends, forecasting growth rates and analysing the competitive situation**; whereas the project-specific **due diligence** has normally been concentrated upon **assessing the deliverability of the business plan** in the context of the **supply/demand balance**. This means that we regularly review price elasticity in the context of **competing infrastructure** (existing and planned), policy drivers and evolving technology preferences. Our core focus is on advising clients on **business risk**.

As well as our broader based technology led market studies we have also analysed many specific market sectors in individual countries or regions. For example: the landfill gas market in Italy, industrial waste processing in The Netherlands, ash treatment markets in France, municipal waste processing in Belgium, C&I waste markets in the UK and Ireland; C&D markets in the USA; MBT and biomass renewables in Germany and the UK, scrap tyre processing in the UK and several other markets; and regional markets in the USA and Spain. In the UK we have also looked at project-specific local markets in many areas including Essex, West Wales, Gloucestershire, London, the Midlands, Thameside and South-East England.

In addition to our client specific work, Juniper's published studies are recognised within the industry as **the definitive reference documents** within their field: for example our '*Market Study: Municipal Solid Waste Incineration in Europe*' (1995); '*Pyrolysis and Gasification of Waste: A Worldwide Business and Technology Review*' (2000, 2001) and '*MBT : a Guide for Decision Makers*' (2005). The research that underpins such analysis informs our client-specific and project-specific assessments of market demand.

But we do not just rely on quantitative analysis. A key part of our overall assessment of project risk and market trends is the ongoing dialogue we have with the industry and client public authorities. Senior personnel within Juniper will typically talk with a wide range of relevant stakeholders during any project to develop our assessment of how real a project is, the probability of delay and the level of commitment to a particular technology or supplier. This is vital to assigning probabilities within a what-if analysis as well as to the overall advice we provide to our clients.

Joe Schwager, Managing Director of Juniper, leads our delivery team for this type of project. He has 30 years of hands-on experience of evaluating international market opportunities for complex technologies and is widely regarded as one of the leading analysts of waste market trends. Joe has provided advice to numerous corporates in the sector as well as many of the leading bodies involved in financing infrastructure investment.

To support increased demand for assessments of commercial risk, Juniper has recently announced the recruitment of **Adrian Judge** as Director responsible for Commercial Due Diligence and Business Advice. Formerly Group Strategic Director for Cory, he was responsible for delivering the largest EfW project in the UK through to financial close (a \$0.5 billion capital investment that was project financed). Adrian's background in assessing project financials complements our existing market-based core competences.

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