



VAUBAN
INFRASTRUCTURE PARTNERS

**VAUBAN'S WASTE MANAGEMENT
MARKET STRATEGY**

INVESTING IN FRENCH'S
SUSTAINABLE ENERGY TRANSITION
SECTOR IN THE FUTURE

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VAUBAN IP'S WASTE MANAGEMENT STRATEGY: INVESTING IN A SECTOR ESSENTIAL FOR CIRCULAR ECONOMY

WASTE MANAGEMENT : AN ESSENTIAL SERVICE FOR COMMUNITIES

Alongside strong economic growth and globalization trends that have taken place over the past decade, waste has increased exponentially in both volume and diversity. In 2018, 331 million of tons of primary waste were produced in France, of which 76% came from the Construction sector, 13% from Industrials, 8% from Households, and 3% from hazardous activities. The management of waste is an essential service that is provided for the benefit of all communities. Waste management represents a critical challenge for our societies, gathering attention and requiring effort and resources from waste producers and public authorities alike. In France and abroad, the impact of waste management on our daily life is usually invisible, but becomes obvious when the waste management chain is disrupted.

While each individual, company, and organization is a waste producer, the type of waste produced is highly diversified, resulting in the necessity to create a complex and multifaceted waste management value chain.

From the collection to the treatment of produced waste, the waste management sector must develop various capabilities and deploy high-end processes to handle waste from all sources and in all forms.



CLIMATE CHANGE, ENERGY TRANSITION AND CIRCULAR ECONOMY UNDERLYING TRENDS RESHAPING THE WASTE SECTOR

Historically, most of the waste produced by industrials and households has been dealt with through two main channels, regardless of waste type or volume: incineration and landfilling. Climate change, energy transition and aspirations for a more circular economy are all positively reshaping the waste sector and will continue to transform it over the long-term. These objectives are indeed reflected in a slow but deep change in company and individual behaviour towards waste and ever more demanding regulations both at French and European level.

CONSIDERABLE FORTHCOMING INVESTMENTS

The waste management sector plays a key role in the ecological and energy transition given it likely has a great impact on the development of a more circular economy, on the reduction of materials produced, and on the production of greener energy that will replace part of the current massive usage of fossil fuels.

Alongside a reduction of waste volumes per individual (which hardly compensates the increase fueled by population growth), the sector itself is evolving at a great pace, and is accelerating its deployment of various technologies designed to help reach the objectives described above.

An increase in the proportion of waste recycled demands more sophisticated sorting centers with greater capacities and new units able to kickstart or reinforce recycling of materials such as plastics (alongside wood, cardboard, paper, metals).

The current macro situation highlights the considerable opportunity provided by recycled materials to partly alleviate commodity shortages and avoid long-haul maritime transport.

To face the increase in volumes of waste to be treated, France would need additional capacity of 2.6 million tons global capacity by 2028 (which could be matched by the construction of new sorting centers), combined with the updating of existing sorting centers totaling 7.9 million tons by 2028.

Moreover, the efficient sorting of organic waste requires investment to develop much-needed **biogas production units** and recycle digestate as fertilizers for local usage. Furthermore, waste management companies are deploying a new generation of waste-to-energy facilities, designed to incinerate **Solid Recovered Fuels** and to combine advanced fumes filter and Incinerator Bottom Ash (IBA) treatments. These facilities address the end-treatment of some non-recyclable waste that today winds up in landfills and provides a critical baseload energy source (primarily heat) to decarbonize industrial processes and / or supply electricity.

The combination of these core infrastructure waste treatment investments will help the sector progress towards a long-term objective of closing landfills, which shall remain an indispensable evil in the mid-term whose operation shall be restricted to the highest standards and provide ancillary methane capture opportunities.

Digitalization of the sector, at every step of the chain starting with **optimization of waste routes and frequencies**, shall also deeply transform the sector. While these transformations are mandatory in today's environment, they are complex to implement, requiring both a very high level of technical knowledge as well as significant investment capabilities. Technical knowledge is a prerequisite which involves very strong barriers to entry, notably comprising:

- (i) the ability to develop and operate state-of-the art technologies, which are evolving rapidly and are key to make a business profitable in a competitive environment, and
- (ii) the development of deep and confident relationships with waste sector

“Paprec will notably operate the largest biowaste unit in France dedicated to treat Ile-de-France household organic wastes”

counterparts, i.e. both industrials and public authorities, as well as a plurality of stakeholders, which are key to have access to waste and to secure land, permits, and other authorizations for the development of facilities, in a sector which is highly regulated given its strategic positioning.

DEMANDING COMMENSURATE LONG-TERM CORE INFRASTRUCTURE EQUITY AND DEBT FINANCING

The waste management sector requires massive investment in order to develop. In fact, investment in the sector is encouraged and protected by stringent state regulations and general acceptance from both the public and companies for higher waste collection and treatment costs. Despite waste volume forecasted to be steady, mandatory capital expenditure and increased complexity of industrial processes will drive waste

treatment prices upwards. In order to mobilize investment from core infrastructure players in assets and corporates, certain conditions are met, which are supported by the **duration of contracts, the average life of the waste management assets, the essentiality of the services, the barriers to entry, and the need for stable and sustainable business models.**

The COVID-19 crisis illustrated the **resilience** of the waste management sector and reinforced how **essential** waste companies are to public service. Most asset cash flows are indexed and predictable, backed by long-term relationship contracts, and significant barriers to entry ensure solid investment protection.



A KEY SECTOR FOR INFRASTRUCTURE SPECIALISTS

Infrastructure investment specialists such as Vauban Infrastructure Partners (“Vauban”) are ideally positioned to address these investments needs and channel long-term investments into resilient, essential projects. These efforts will ultimately build the infrastructures of tomorrow and revamp existing projects, in partnership with industrial and public stakeholders.

Vauban is committed to invest resolutely in the waste management sector, in line with its long-term commitment to take part in local sustainable developments. In this context, Vauban is very proud of its investment in Paprec, a French waste management power-house and the historical leader in recycling.

PAPREC

In March 2022, Vauban became a key shareholder of this dynamic waste management company, which is active along the entire value chain in France. Vauban will leverage its team and financial capabilities to support further the development of Paprec, whose business model favors circular and ecological business.

Vauban’s investment in Paprec will indeed support the company development plans requiring substantial capital expenditure in the following subsectors:



MODERNIZATION AND EXTENSION OF ITS INDUSTRIAL BASE.
Embedding more technology in sorting centers will allow Paprec to increase the recovery rate of all materials, reduce the difficulty of sorting centers personnel’s work, and sort new types of materials that cannot currently be sorted efficiently (thus end up in landfills or incinerators without having the opportunity to be recycled). All of these investments will contribute towards Paprec’s environmental and social goals.



PROGRESSIVE RENEWAL OF PAPREC’S EXISTING TRUCK FLEET AND TECHNOLOGICAL OPTIMIZATION OF COLLECTION ROUTES.
Paprec intends to reduce its CO₂ emissions through a progressive **renewal & modernization of its truck fleet via electrical and/or hydrogen trucks**, in addition to developing technological tools, software, and processes ultimately leading to an optimization of collection requirements and contributing to an overall reduction of distances travelled and GhG emitted.



DEVELOPMENT OF NEW TREATMENT METHODS:
The shift from landfill and regular incinerations to new treatment methods, which allows for more efficient reuse of waste, has already begun. These new treatments methods are notably related to **SRF incinerators and mechanizers**, and allow for the extraction of value from organic and non-recyclable waste through the production of heat, electricity and fertilizer. Such a shift will require significant investment, and Paprec is one of the most well-placed players to benefit from and contribute to these market evolutions having acquired specialist CNIM division and Dalkia Waste Energy.
Paprec will notably operate the largest biowaste unit in France dedicated to treat Ile-de-France household organic wastes.



PAPREC & ESG

As the **3rd waste management player in France**, Paprec is naturally exposed to the environmental, social, and governance risks and opportunities inherent in this sector. It is therefore essential that the company has policies in place that are adapted to the challenges of this sector in order to ensure that its activities are operating in line with best practices for the benefit of its customers, its shareholders, the State, and all stakeholders.

For several years, Paprec has materialized its ESG action through several social and environmental policies and through the monitoring of relevant indicators; through this, Paprec has provided a structured framework for its management and its employees, and allows for active monitoring of their results.

Paprec demonstrates the quality of its extra-financial performance, illustrated in particular by:



Vauban favors the continuous development of ESG initiatives, such as the reinforcement of Paprec's ESG direction and the creation of a **Climate Committee**, chaired by Vauban, which is part of Paprec's governance reorganization that came about following Vauban's most recent investment. It will notably aim at reinforcing the **commitments** already made by Paprec and at implementing new policies.

Vauban Infrastructure Partners is proud to help shape the future of the waste management industry and will continue to support the financing of its core infrastructure assets as a committed stakeholder.

Want to learn more about
Vauban's ESG strategy ?

Contact us :
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