

Environment & Building Technologies: Global Growth Opportunities Fueled by Demand for Energy Efficiency

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Energy Efficiency: The Buzzword of 2008

It's hard to get away from high energy prices at the moment. That's why it was no surprise to anyone that energy efficiency was the main theme of discussion in the Environment and Building Technologies (EBT) industry track at the Frost & Sullivan Growth, Innovation and Leadership (GIL) Executive Congress in September.

Although there is widespread hope that the prices of primary fuels will drop further from the peaks achieved in early 2008, there is unanimous agreement that the days of cheap energy are long gone. Energy is expensive nowadays and has rapidly become one of the most important operating costs for managers of buildings and infrastructure. Combined with increasing environmental awareness (and regulation), and challenges to meet the rapid growth in global energy demand, this all adds up to increasing growth for demand side solutions for energy efficiency.

In fact, for much of the EBT industry, high energy costs are no bad thing, creating multiple growth opportunities for solutions that manage the triumvirate of interlocking issues that make EBT markets both attractive and complex: operating costs; energy supply and demand challenges; and environmental pressures.

Of course, high energy prices mean that operating costs are increasingly driven by the costs of fuel and electricity. This is creating a very powerful proposition for suppliers of solutions to the EBT sector, whereby energy efficiency (and hence environmental performance) is inherently linked to cost saving.

This 'double-edged sword' effect is enabling the movers and shakers in the sector to build their core value propositions around the theme of energy efficiency, thereby offering their customers a solution that saves operating costs, while also enhancing green credentials.

With the green issue also showing no signs of diminishing in importance, this approach is allowing players to reduce their environmental impact, while also achieving important competitive advantage through a greener image and offering.

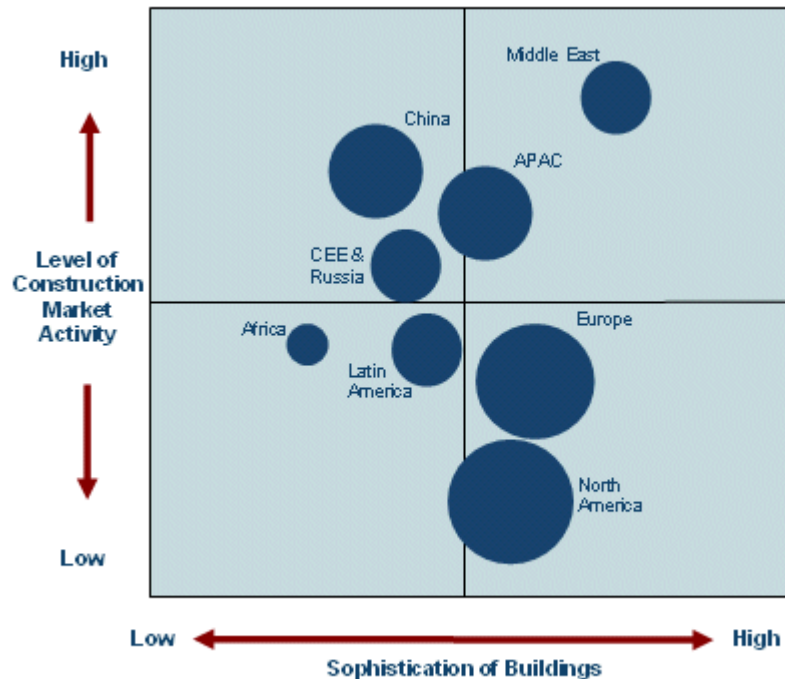
Infrastructure versus Buildings

With the definition of the EBT sector embracing a very wide range of markets, the energy efficiency theme manifests itself in a number of ways, creating exciting opportunities in both the infrastructure markets (water, waste management etc.) and building markets (smart buildings, green buildings, building integration etc.).

Opportunities in Building Efficiency

It is now widely recognized that buildings are responsible for between 35 and 50% of global carbon emissions. It is also a fact that there is still a huge opportunity for automation and integration of technology within buildings that can dramatically reduce energy consumption and thus emissions.

Key Indicators of Building Technology Market Opportunities



Source: Frost & Sullivan

Heating, ventilation and air conditioning (HVAC), followed by lighting, are the principle sources of energy consumption, yet the smart management of these functions is only just in its infancy.

This was highlighted in the GIL presentation by Edmund Richards, CEO of Richards-Zeta, Inc, who discussed "Bridging the Capability Gap for Scaled Energy and Facility Management Systems". Edmund discussed how commercial buildings waste up to 1/3 of all energy consumed in part because traditional facility equipment and systems lock valuable data in proprietary formats and operations cannot leverage the power of the web to optimize management. An Intelligent Building System (IBS) helps organizations seamlessly integrate their physical equipment layer and bring the systems into the IT network without the need for costly enterprise applications.

Using his own company as an example, Edmund demonstrated that with IBS in place, facilities can gain immediate cost reductions, improve operational efficiency, and cut their carbon emissions.

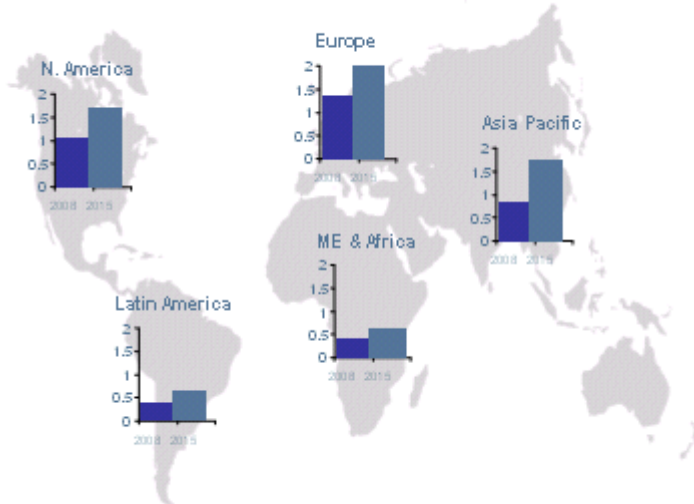
Opportunities in Environmental Infrastructure

On the infrastructure side of the market, there are two main sectors creating a buzz at the moment: the water industry and the waste management sector.

In the water sector, with energy efficiency as the major driver, we are seeing technology-led growth in RO desalination, recycling and re-use and distribution efficiency, as well as the rapid emergence of 'energy from wastewater' solutions (UASB, IC Reactors, Digestion, CSTR etc.). A great example is GE's 'Waste to Value' proposition for the wastewater treatment sector, with a clear focus on water management driven by energy efficiency.

Meanwhile, waste management is growing under the combined forces of rising waste volumes, growth in energy demand and environmental pressures. Waste to energy and anaerobic digestion are both seeing high levels of investment growth and the energy recovery market is on the cusp of going global with emerging growth in India, China, Taiwan, Singapore, and Central and Eastern Europe.

Global Growth Opportunities for Waste to Energy Solutions



Source: Frost & Sullivan

The importance of opportunities in the water sector for both new technologies and new geographies was presented by Laura Demmons, Chairman and CEO of Sylvan Source, Inc. Laura demonstrated that international markets provide potential opportunities, even for small companies and start-ups. There is also a clear need to be agile to leverage technologies to new international opportunities and that to be able to exploit international opportunities, partner fit is the key, and a significant challenge for all types of player.

Conclusion

The Growth, Innovation, and Leadership Global Congress on Corporate Growth provided a rare opportunity for executives in the Environment and Building Technology industry to share ideas, concerns, and strategies, and more importantly to speak frankly about the issues facing the industry today.

Challenges relating to the interlinking issues of environmental performance, energy costs and energy demand growth provided the framework for a constructive and interactive session that provoked lively debate and provided keen discussion on future growth opportunities.