

Three strategies that determine which algae companies will attract capital and scale up their enterprises, and which will never move beyond the testing phase

How to be an algae survivor

Of all the current algae production companies, R&D ventures and public-private partnerships currently in play, less than a dozen graduated into pre-commercial, deployment-stage algae ventures using pond, photo-bioreactor and fermentation based production systems during the economic recession.

These survivors, and many of these winners will expand globally and multiply leading to hundreds of projects, markets, products, and co-branded ventures, while others will be left behind.

Emerging Markets Online's latest edition of Algae 2020 reveals three key strategies that determine which category a company will fall into.

Strategy #1: drop-in fuels

There are about a dozen leading algae companies that have successfully progressed from pilot tests into demonstration scale projects. Why? In addition to being able to produce either ethanol or biodiesel, these organisations are also able to produce drop-in replacement fuels like biojet and renewable diesel that are in high demand today by various industries including oil and gas, aviation, petrochemical, and the US military.

Current winners are focusing on diversifying their fuels beyond just algae for biodiesel. They are focusing on algae for

ethanol, and algae for drop-in replacement fuels like biocrude, renewable diesel, biojet fuel, and biobutanol for early stage commercial and defense customers. This is what the market demands. If an organisation is simply pushing a technology it will most likely to fail. The winners focus on a market pull or demand-based strategy.

Strategy #2 Diversified markets

Most winning algae producers are diversifying their short-term focus on high-value products including: omega 3s, health products, cosmetic, pharmaceutical, and specialty chemical uses; and some mid-value markets like livestock and fish meal, renewable chemicals.

Going after small, high value markets allows start-ups to bring in revenue to pay the bills and establish brand identity while scaling up their operations over

time to commercial scale biofuel production. This is a short-term and short-sighted strategy, since most of the 'higher value' markets are small in size, limited in competition, and will be quickly saturated by the long-term players as they reach economies of scale for biofuels production. There are a few exceptions in higher and mid-value value products with very specific ingredients for poultry/fish feed and nutraceutical supplements that will find long-term success, and increasing competition.

Strategy # 3 Bring together R&D labs, universities and public-private partnerships

Among R&D and start-up related algae projects, the winners attracting government grants, funds, or private funds share the following in common. These winners bring together collaborative clusters of research labs, industry,

government, academia, cleantech investors, and producers to share and collaborate on key technology challenges and market demand-based opportunities.

Collaborative endeavors create economies of scale, more access to funds, more access to private and public interests in the marketplace, and ultimately will be more likely to create the environment to bring algal biofuels to market sooner than their competitors. In contrast, if it is simply one organization, university or start-up doing research & development without the benefit of interaction with other entities, they will be severely limited in their scope, R&D, project, and technology licensing endeavors.

If algae companies and R&D ventures engage in these three core strategies, they are more likely to attract the needed investment dollars, and ultimately will more likely to scale up from the R&D laboratory stage to demonstration and commercial scale. Among the winners that successfully make this transition, many will expand globally and multiply leading to hundreds of projects, markets, products, and co-branded ventures. Others will be left behind.

For more information:

The above is an excerpt from Emerging Markets Online's latest Algae 2020 study Vol 2 (February, 2011 update). Contact Will Thurmond, author and principal investigator at info@emerging-markets.com or visit www.emerging-markets.com

