

CHANGING THE LANDSCAPE

A Plan to Automatically & Sustainably
Grow Algae in Harsh Climates

In partnership with



&



Changing the Landscape represents three initiatives.

- 1 Accelerating the advancement of large scale algae farming technology.
- 2 Transforming deserts into productive land.
- 3 Reshaping the way society's food and energy is produced.

MISSION

To fully harness the benefits of algae for the betterment of humans and the planet.

VISION

To diversify the food supply and offset our current reliance on unsustainable farming practices.

VIABILITY

THE
A2A WAY

IMPLEMENTATION

PEOPLE &
PURPOSE

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VIABILITY

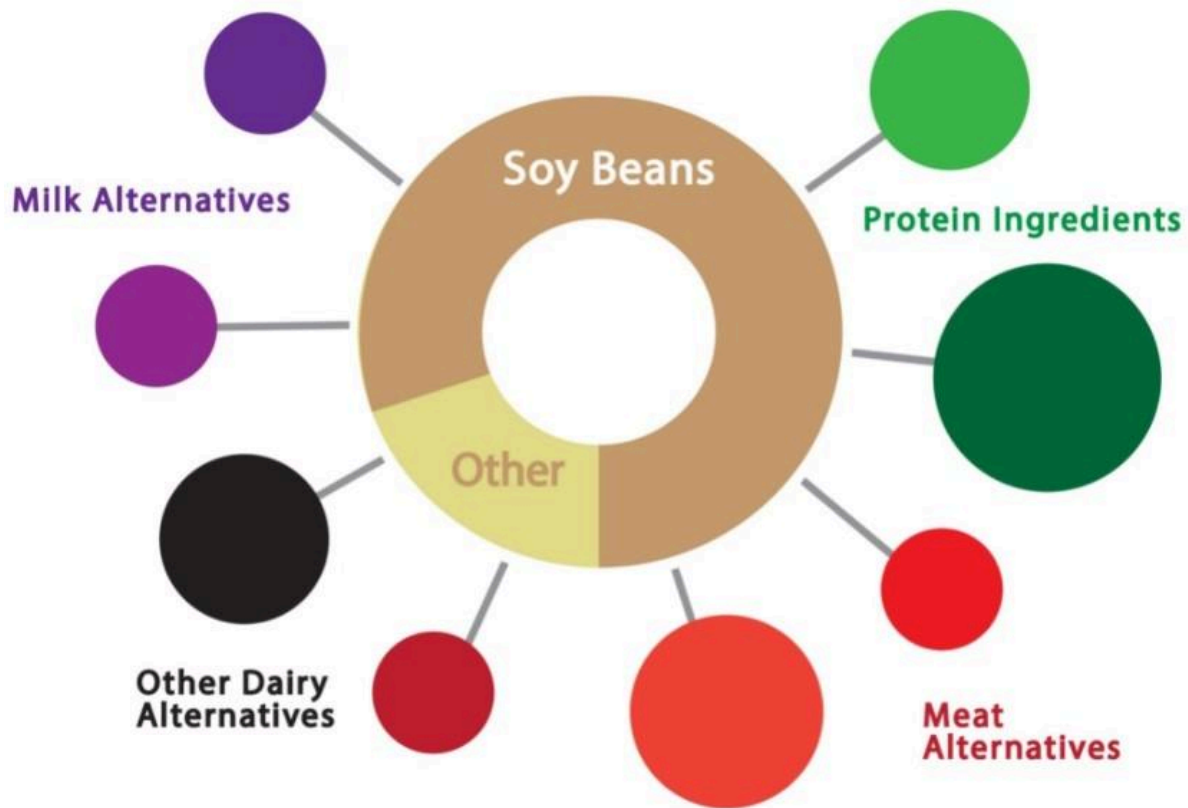
This opportunity to partner with A2A will lead us to dominate the plant proteins market and several others in our future. This segment outlines the markets we will be competing in, some current financial projections and available opportunities that will help us scale.

MARKET

A partnership with A2A will offset the reliance on current food supply, providing a more stable market, relieving the pressure of global reliance on humanity's current systems.

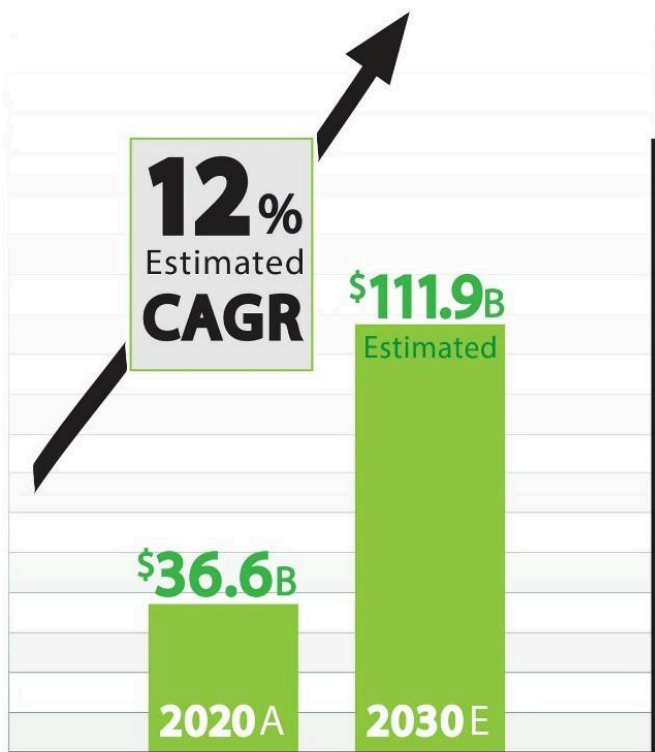
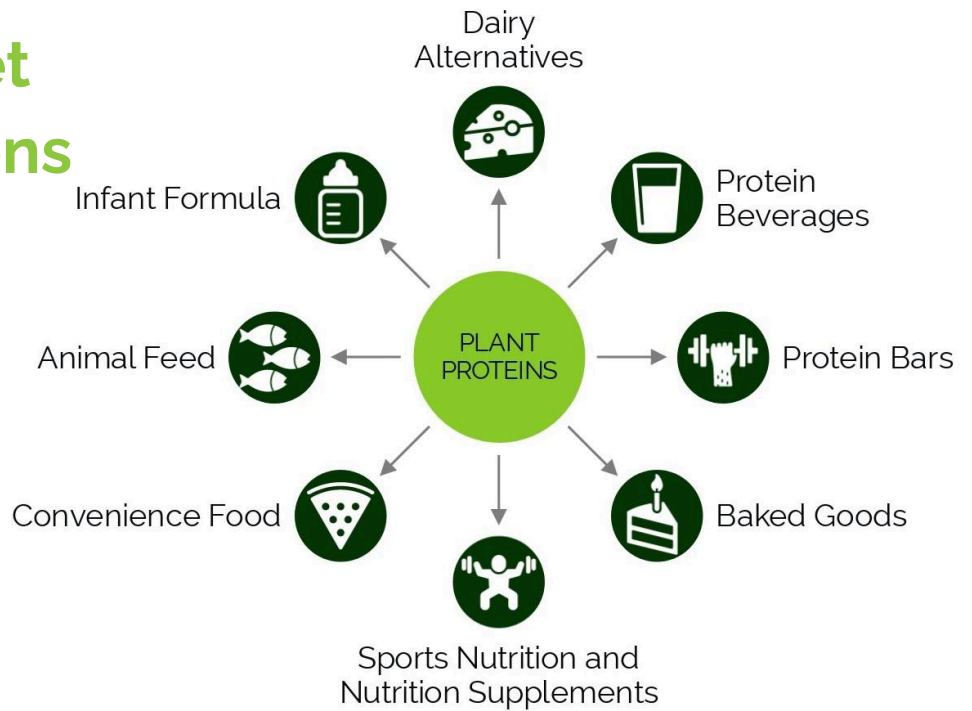
Plant Proteins

Global Market Snapshot



One glaring reason for growing algae is that widely grown conventional crops, like corn or soybeans, take an entire season for just one harvest. Under the right conditions, algae can be harvested daily with the ability to double or triple the biomass everyday.

Key Market Applications

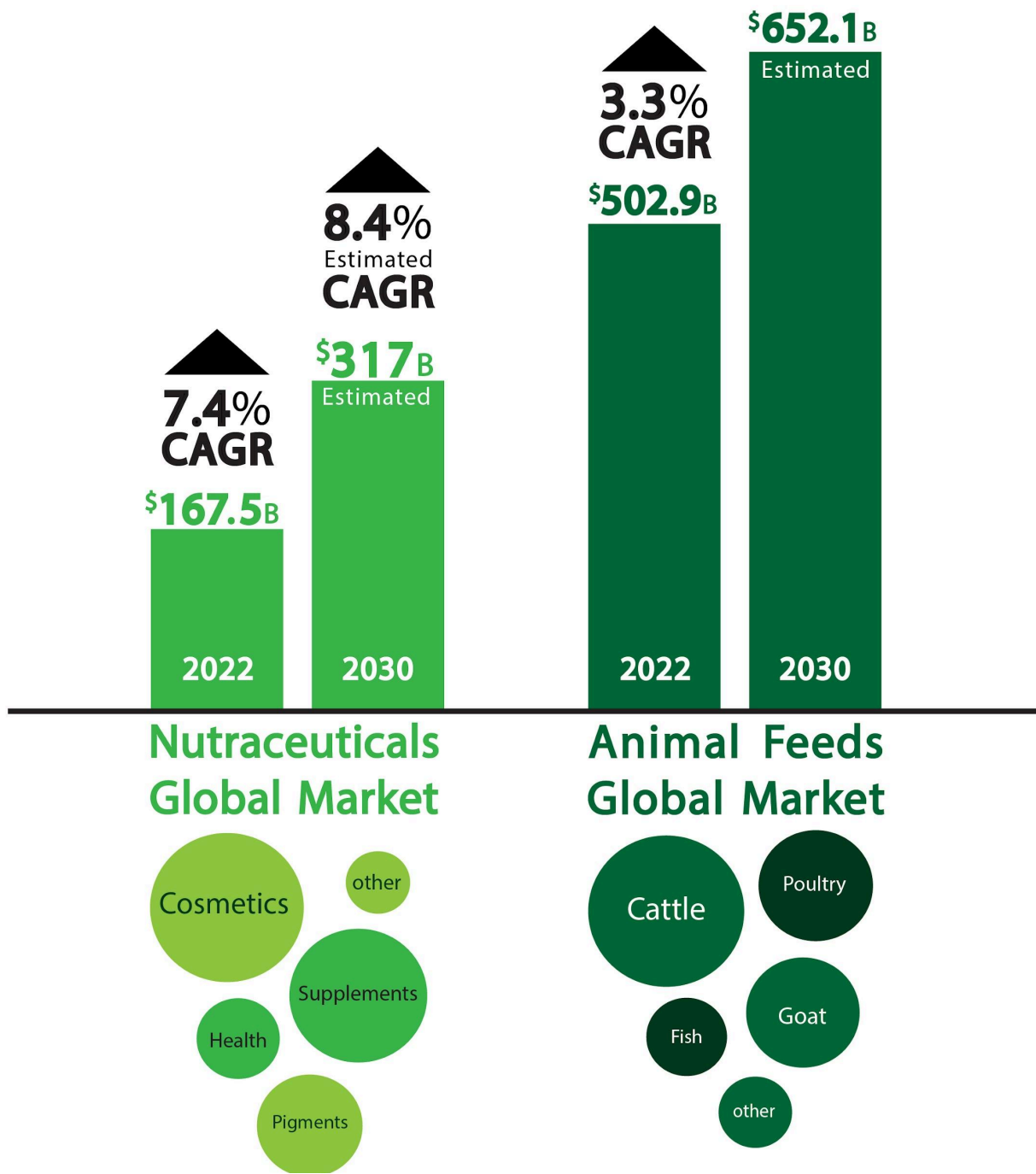


Global Plant-based Product Market
(in USD)

Adoption of Plant Based Products

Predictably, large-scale algae growing operations have been popping up all over the world to explore and capitalize on algae's growth patterns and benefits.

Target Markets



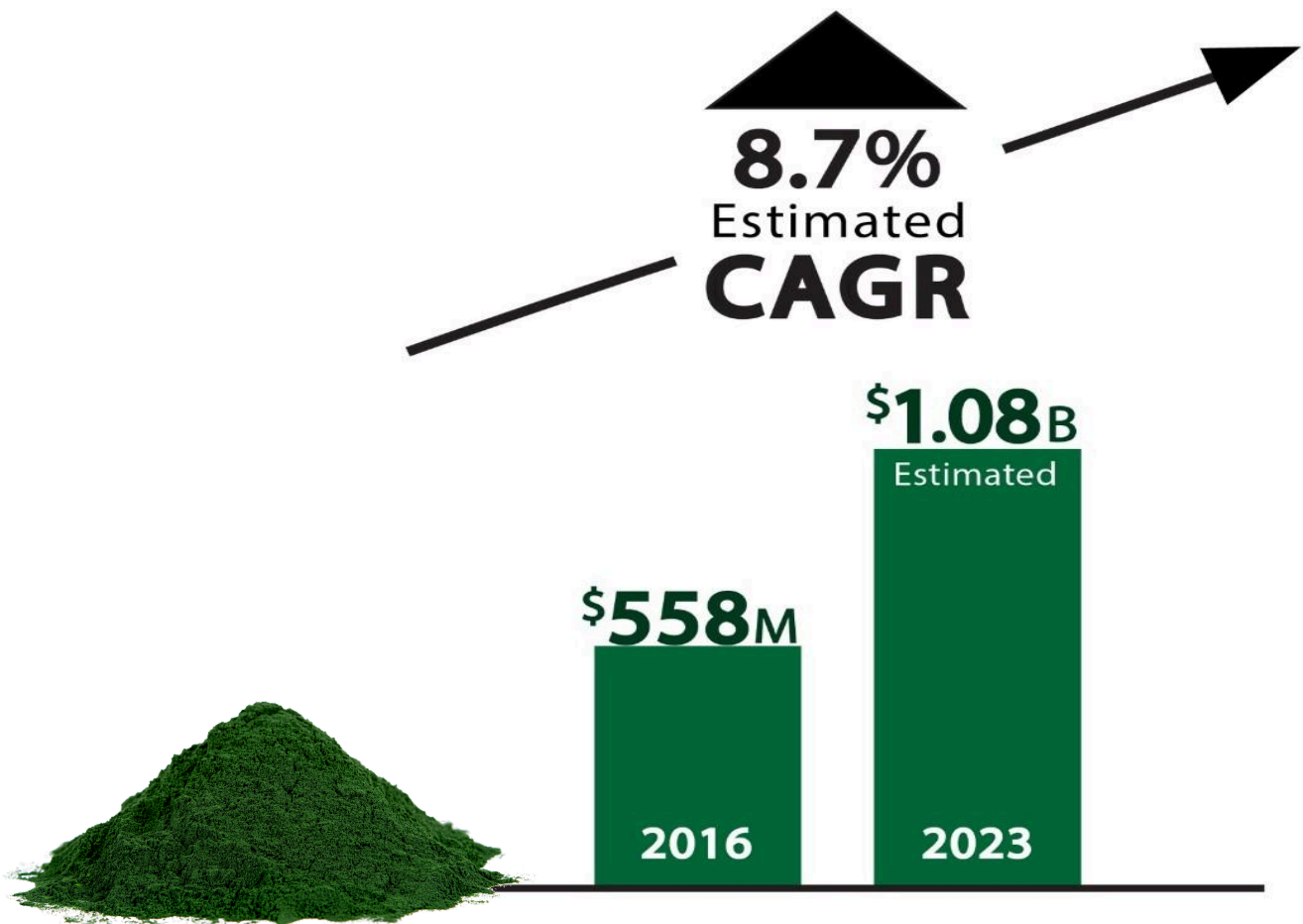
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Farmers that supplement or completely replace soy beans with algae will substantially lower their cost of livestock production while maintaining or increasing growth rates of animals. This makes for an easy transition for many farms and industrial ag operations. [\[5\]](#)

Other researchers have done the hard work for finding feasibility of feeding algae to livestock that vary in type: cattle, sheep, goats, fish, etc.; and have found excellent results. [\[5\]](#)

Not only does an algae replacement for protein in feed mixes produce higher growth rates, the animals get vitamins and minerals, and their overall health improves. This leaves an easy choice for farmers and feed suppliers as a cheaper alternative protein. [\[5\]](#)

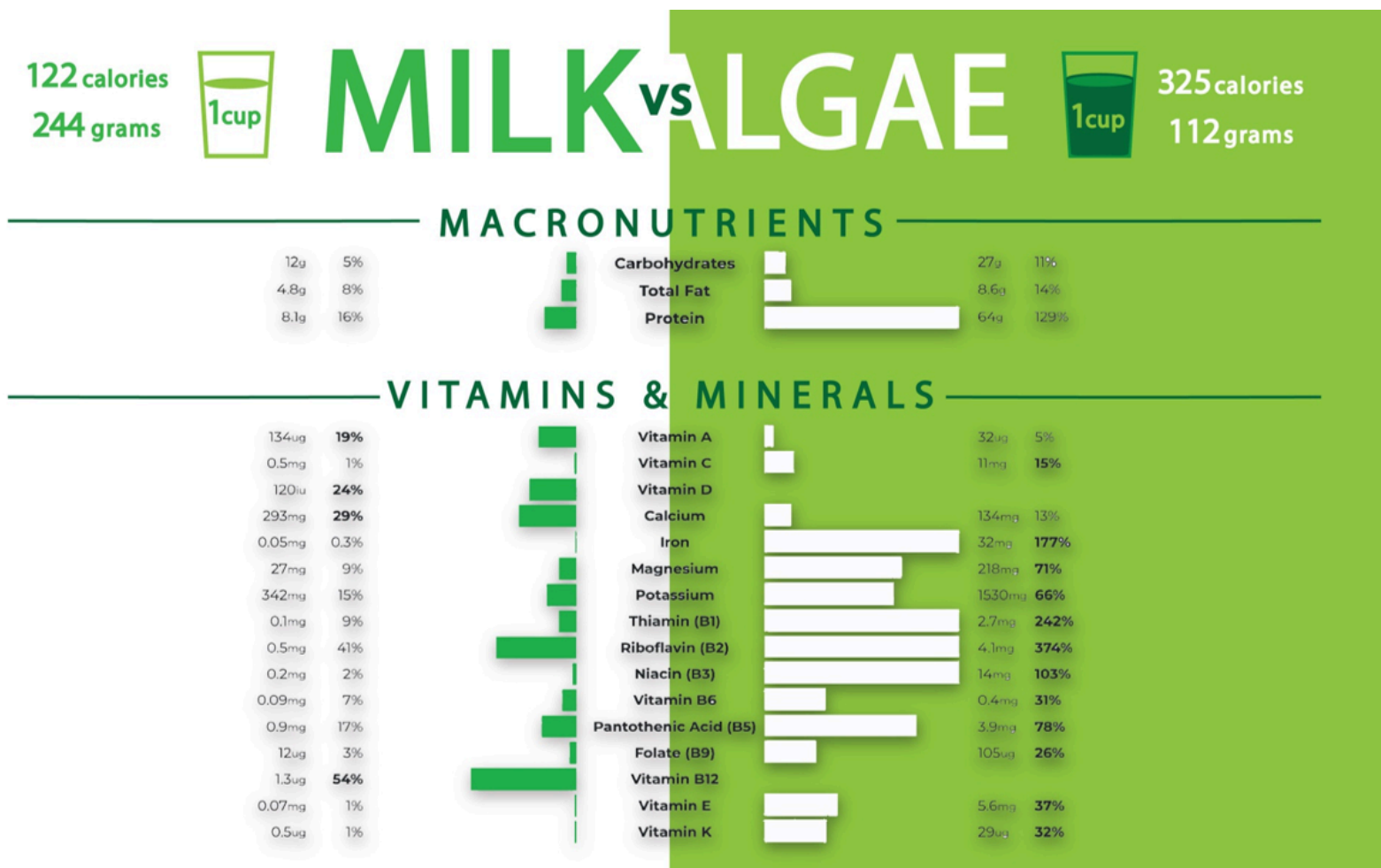
Global Algae Protein Market



Consumer Benefits

With a full spectrum of essential nutrients, Cyanobacteria, known to consumers as Spirulina, is considered a nutritional powerhouse.

In addition to being an excellent source of protein, Spirulina can be used for treating many conditions, including high blood pressure, high cholesterol or other fats (lipids) in the blood, diabetes and obesity. [\[4\]](#) [\[21\]](#)





RETURN ON INVESTMENT

The business of growing algae has been proven to be incredibly lucrative for a number of reasons. A2A is ready to embrace ideas and perspectives of our partner(s) to explore the relevant opportunities

Hundreds of millions of dollars in investments have already been put into bringing both open pool systems and bioreactor algae facilities into operation. Although A2A's scalability plan will center around the bioreactor method, we will rely on an open pool system to streamline A2A's innovations for scaling. We outlined some current figures regarding the production capabilities of open pool systems from today's algae producers.

A partnership with A2A will create an operation that will be far more productive than any current large scale industrial algae producer because of our superior production capabilities outlined in the "The A2A Way" section. These baseline documented figures show what is possible before applying A2A's innovations to the process.

Production & Income Analysis



Processing wholesale will be simple as dry products will sell as is.

With 150 acres of raceway pools and an additional 10 acres of structures, we project a gross income of 21 million USD annually. [\[9\]](#)

Note: This production level is based on older models that don't include optimizing harvesting, downtime, and manual labor costs. Leaving ample room to increase annual production and gross income.

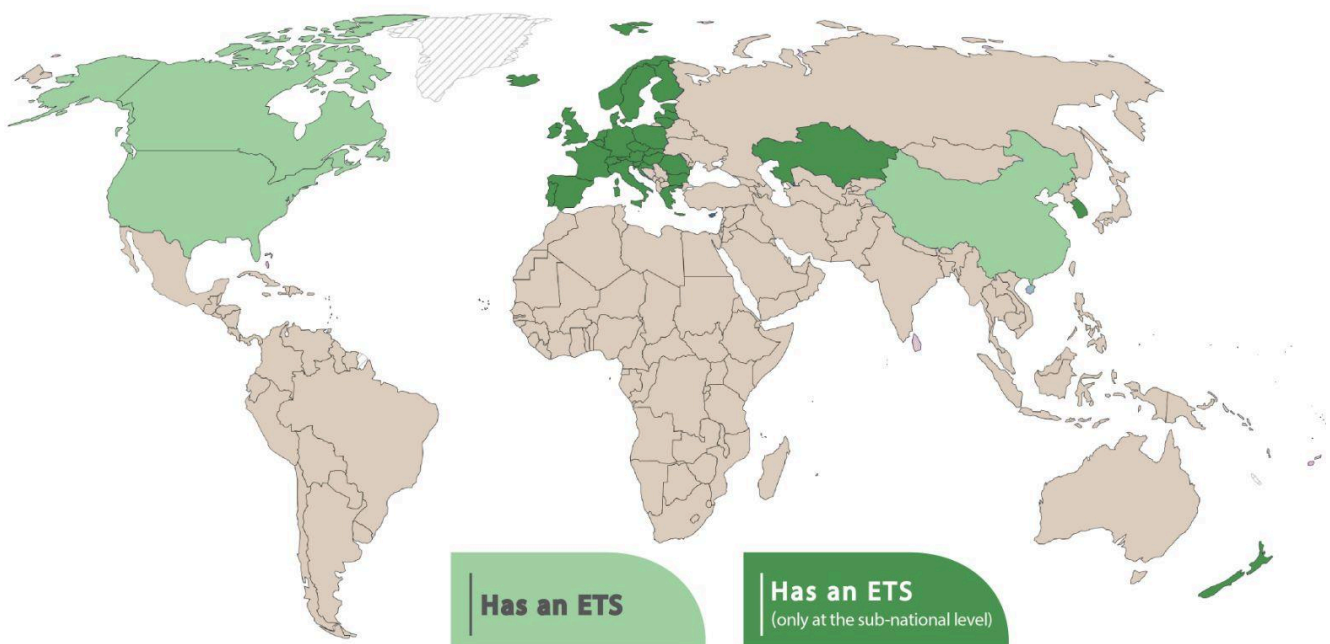
Notes: This figure is bulk sales, leaving ample room for up-sales and product lines. Retail consumers buy Spirulina at \$20 per kg packaged. Boosting gross income to \$1,600,000 USD annually per 10 acres. [\[10\]](#)

Additional Funding Opportunities

A partnership with A2A will allow us to explore additional private and public sector funding outside of our partnership(s) such as Opportunity Zones, green energy funding and government grants, social media campaigns, and other crowdsourcing platforms. This will allow us to streamline completion of phase 2 and move into phase 3 more easily.

Carbon Credits

Many countries have incorporated a carbon tax or 'cap and trade' system already. We believe that because of growing public concern and politicization around the topic of climate change, many more countries will jump on board, making capturing carbon for credit reimbursement a lucrative option for A2A in the future.



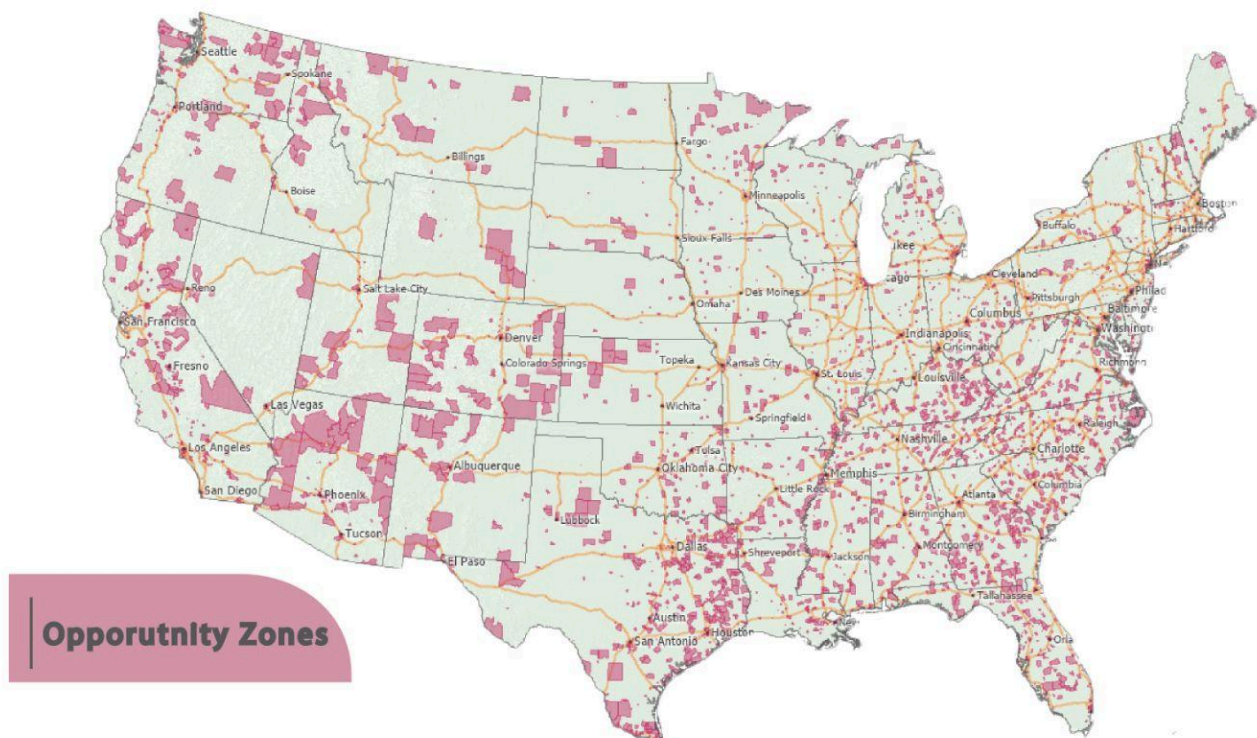
In 1990 Finland and Poland became the first countries to incorporate a carbon tax, forcing companies to either emit less carbon or provide capital to offset their emissions. Soon after, a 'cap and trade' system evolved. The most well-known 'cap and trade' system is the European Union's Emissions Trading System (EU ETS). [\[8\]](#)

Opportunity Zones

A partnership with A2A will allow us to map prospective sites that qualify as opportunity zones, maximizing return on our partner(s) investment. Opportunity Zones is a government program started Dec 22, 2017 and will end Dec 31, 2028 to encourage long-term investments in low-income communities nationwide.

The primary benefit of investing in these communities under a qualified opportunity zone program is the deferral of capital gains tax liability, as well as the possibility of a 100% tax-free gain on the investment if held to the required term. [\[17\]](#)

The success of the program promoted a draft in 2022, by House and Senate a piece of bipartisan legislation that would have accomplished several things, one of which would have been the restoration of the opportunity zones reporting requirements, but also an extension of the deadline of the program's expiration date, from 2026 to 2028. This legislation to extend the program has yet to be approved. [\[17\]](#)

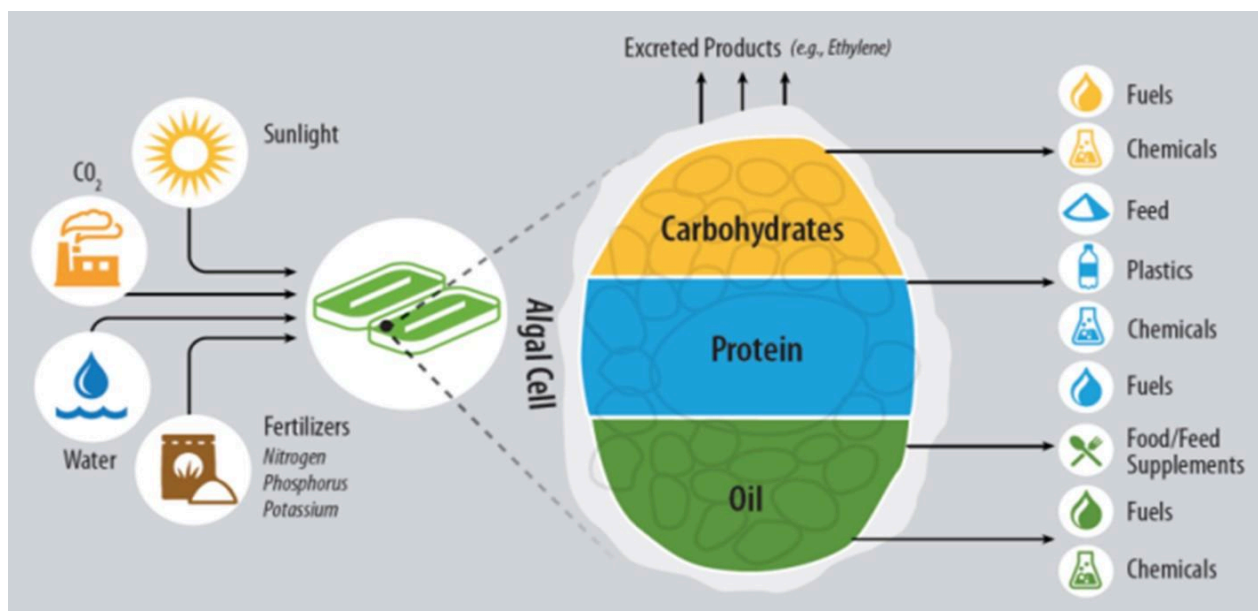


Due to the typically low economic opportunities of communities living in deserts, many of our prospective sites will qualify as an opportunity zone, making us eligible for reimbursement from the program. [\[11\]](#)

Alternative Revenue Streams

Algae as a Biofuel

Algal biomass contains three main components: carbohydrates, proteins, and lipids/natural oils. Certain strains of algae store the majority of their energy in the form of natural oils and less in the other components. Of the natural oils made by algae, most are in the form of triacylglycerol; which is the right kind of oil for producing biodiesel for automobiles, trains & planes.



In addition to biodiesel, microalgae can also be used to generate energy in several other ways. The biomass from algae can be burned similarly to wood or anaerobically digested to produce methane biogas to generate heat and electricity. Certain algal species can produce hydrogen gas under specialized growth conditions and even be treated by pyrolysis to generate crude bio-oil.

Why is algae currently not widely used as a fuel source? While algae can produce higher yields of biofuel per acre compared to traditional crops, the costs associated with setting up cultivation systems, maintaining optimal growth conditions, and processing the algae into usable fuel have been significant barriers to commercial viability. A2A's automated systems allow us to overcome these obstacles.

Natural Plant Dyes & Extracts

Compared to other natural dye sources like plants, bacteria, and fungi, microalgae possess significantly higher pigment productivity potential for textile [\[27\]](#) and food applications. Using marine organisms like microalgae for color is not only highly effective; it is safe, sustainable and doesn't harm the planet. Chemical dyes, on the other hand, are made in a lab and expose manufacturers, consumers and the environment to thousands of cancer-causing carcinogens.

Phycocyanin, an all natural blue colorant extracted from cyanobacteria (Spirulina), is the first natural blue food coloring to be approved by the U.S. Food and Drug Administration. With major food product manufacturers in the United States and Europe promoting a shift from artificial to natural food colorings, the demand for phycocyanin is expected to increase dramatically.

The FDA first approved Spirulina Extract as a food additive in 2013 for applications in gum and candy. In 2014, the list expanded to frosting, ice cream/frozen desserts, dessert coatings & toppings, beverage mixes & powders, yogurts, custards, puddings, cottage cheese, gelatin, breadcrumb, and ready-to-eat cereals (excluding extruded cereals.) In 2015, coatings in dietary supplements & pharmaceuticals were also approved as the applications continue to grow. [\[26\]](#)

The natural color market has exploded within the last few years as major food companies announced their switch from artificial ingredients to all natural. Consumers are becoming more aware and educated about what they put in their bodies and are demanding for the food and beverage industry to change and keep up with the clean label movement.

Algae Emulsion as a Fertilizer

Algae emulsion as a biofertilizer can be used to improve soil quality without degrading the ecosystem. Emulsion from algae is used to help bind the soil, increase its water retention capacity and reduce soil erosion during the rainy seasons.

Marine algae has long been used as fertilizer by farmers whose land is close to the sea. They are rich in macronutrients, micronutrients, and growth regulators that can enhance the growth and yield of crop plants. Brown and red algae, specifically, are commonly used as farmland fertilizer today to add potassium, which enhances root growth and resistance to droughts. [\[28\]](#)



SCALABILITY

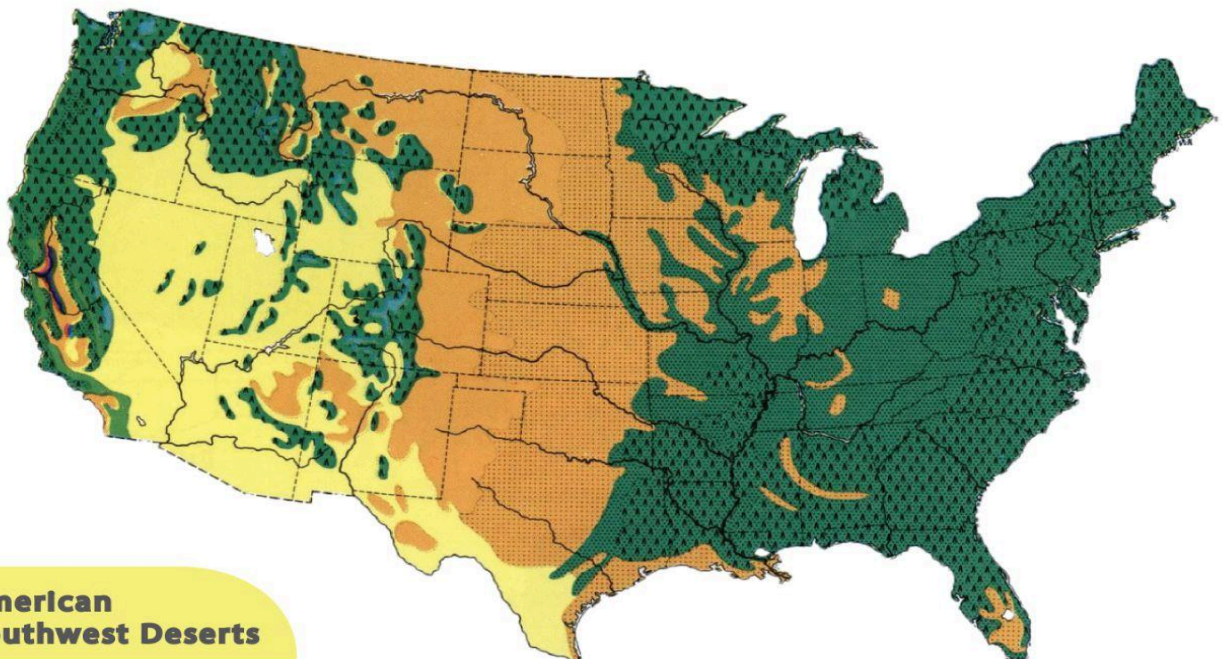
A2A's scalability plan centers around transforming deserts into usable farmland to grow algae and will not involve open pool systems; only bioreactors for a number of reasons.

The available water from saltwater aquifers is a constraint to how large we can build a facility if not used efficiently. A2A's sealed design allows for an otherwise limited water supply to sustain a larger growing area in the desert. Open pool systems lose water due to evaporation changing the salt concentration which leads to other difficulties and more water usage.

Drastically Reduced Cost of Land

The upfront cost savings in land makes building a high cost bioreactor facility viable where it would otherwise take decades to produce a net gain.

A partnership with A2A will allow us to capitalize on the vast desert areas of cheap land with environments that otherwise would be too harsh to grow algae. With A2A's provisional patent innovations outlined in "The A2A Way", our system can maintain stable temperatures in the extreme conditions of a desert climate.



**American
Southwest Deserts**

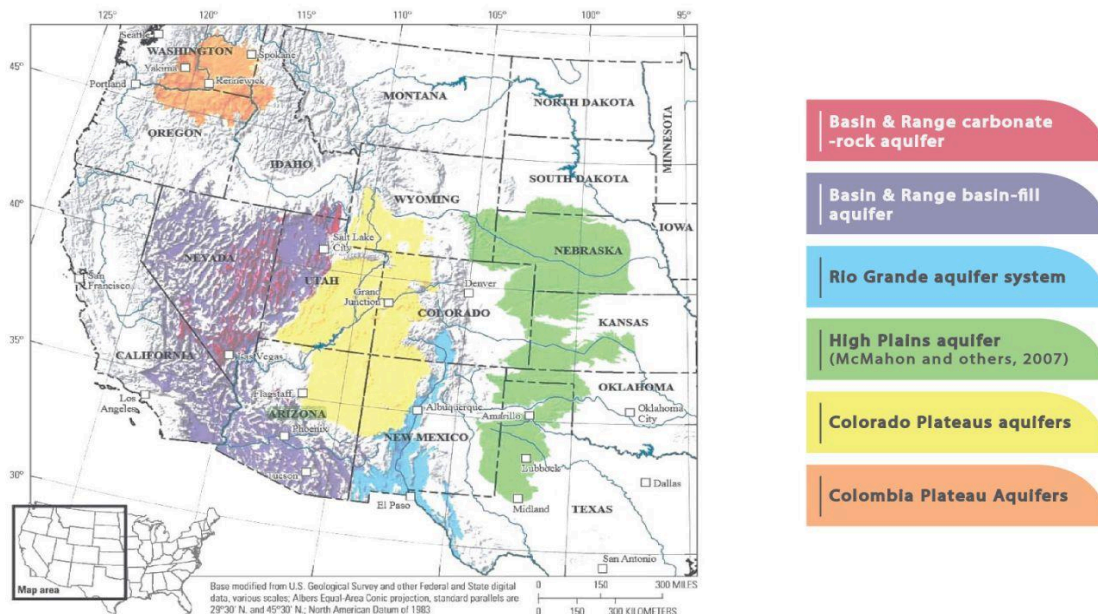
Utilization of Water

When expanding into deserts A2A will be using already available or under utilized water infrastructure to drastically reduce implementation costs for each desert facility as we scale. This leads to the obvious question; 'where will the water needed for this project come from?'

On a trip to the Glamis sand dunes in Southern California, The founder John Hittner met a man who showed him the way to an oasis in an abandoned military area next to the dunes. John was curious about a pipe coming out of the ground that was supplying water to the soaking pool.

The man described a huge public works project in which The U.S. Army Corp of Engineers drilled wells all across the southwest looking for fresh water but none was found, only brackish water from vast aquifers. These wells leading to the aquifers were capped and abandoned.

With desalinization technology, A2A will make use of the aquifers under the southwest United States by modifying the water's salinity for optimal algae growth. These same technologies will be used to supply our facilities with the fresh water needed for lab work, employee consumption, harvesting, and cultivation.



The cost savings in land, capital from Opportunity Zones, and access to vast potential sites to expand, makes building a high cost bioreactor facility viable where it would otherwise take decades to produce a net gain.

THE A2A WAY

Utilizing already proven methods of growing algae, we've automated several processes with our provisional patents. Our algae production facilities cut several costs, maximize algae growth and operate in harsh climates.

GROWING ALGAE

To understand how A2A produces more algae more efficiently, one must first understand how large-scale algae production is currently being done. There are currently two methods for industrial algae production being used today: open pool design or bioreactors; both with pros and cons.



Open Pools

Raceway ponds are currently the most efficient application of open pool systems on the market. They are relatively cheaper to implement and reliable, but are subject to large amounts of water evaporation and air contaminants. This results in the periodic need to drain and reseed their systems. Raceway ponds only work well in areas with easy access to water and temperate climates.

Bioreactors

Bioreactors utilize sealed environments that are designed to be easier to monitor and control. This method allows easy data collection and monitoring of PH levels, TDS (total dissolved solids), temperature, saturation of the algae and growth rates. Bioreactors are expensive to implement and need to be housed in a greenhouse or built in temperate climates.



A2A will incorporate both methods into our system starting with the proven to be viable raceway pond. Building out raceway ponds first will give us consistent revenue and research; bridging the gap between the costs of implementing bioreactors and the long term benefits they provide.

A2A'S REVOLUTIONARY SYSTEM

With career experience in machinery design, manufacturing and maintenance, John Hittner has co-opted modern manufacturing technologies to fit the unique problems associated with algae cultivation systems. A2A will use proven growing methods, along with energy saving technology and automated machinery to lower the overhead and increase production.

A2A utilizes an air-driven circulation system and John's provisional patents for an optimized version of already proven algae cultivation methods. A2A's process increases efficiency in production rates and decreases energy consumption with the ability to operate in harsh climates.

Although Spirulina will be the main crop, A2A's facilities will be easily converted to cultivate many other algae strains depending on where the markets lead us.

Automated Climate Control

A majority of the planet is not suitable for industrial algae production because of climate limitations.

A2A's provisional patents; Harsh Environment Air and Water Treatment System, Tube In-Tube Vacuum System, and Automated Environmental Controls give us a unique edge in the marketplace, opening ourselves up to vast areas of land with environments that otherwise would be too harsh.

Aside from lucrative implementation options, our automated climate control system manages the ideal temperature for optimum protein content (30°C/86°F to 35°C/95°F) allowing for a higher rate of production and more frequent harvests.

Automated Nutrient Production

A2A's automated nutrient production system automatically produces the nitrogen and nitrates to supplement the growth of our algae crop.

A2A's two provisional patents, Air-Driven Circulation System and Perpetual Nutrient System, work together to automatically digest biological waste and turn it into food for algae. This allows A2A to drastically reduce our dependence on outside sources to feed our crop.

A2A's Perpetual Nutrient System involves growing a full system of algae, allowing it to die, and using beneficial bacteria to digest the biomass into nutrients that we will feed to the next culture of algae. This cycle builds the nutrient density to maximize the full potential growth rate of algae. [\(carbon respiration process link\) \[18\]](#)

Automated Feeding

The combined effects of the Perpetual Nutrient System and the Max Growth Curve System almost eliminates the cost of feeding the algae, allowing us to increase production and harvest more often.

With A2A's provisional patent, Max Growth Curve System, we're able to automatically create the perfect balance of nutrients and specific minerals to achieve exponential growth rates. A number of studies show that algae doubles and triples each day with a nutrient rich environment. [\[16\]](#)

Automated Harvesting

A2A's Automated Environmental Controls in tandem with our Automated Harvesting System uses a micromole light sensor to automatically test the density of the algae culture and trigger a harvest when it becomes too dense for light to penetrate.

Irregular harvesting and time consuming laboratory testing limits the industrial production of algae. Algae facilities normally must take a sample to be tested to determine the density of the culture before giving the green light to harvest and is not always harvested at the optimal time.

Unlike our competitors, A2A is able to harvest at the optimal time to utilize the full capacity of the large-scale harvesting equipment used. A2A will use a continuous harvesting model to optimize the production curve and growth rates by maintaining light penetration through the removal of algae before it becomes too dense.

Automated Dewatering

Current algae production facilities require people to harvest by hand. This process is highly inefficient using valuable manpower and time.

A2A's Nano-Hook Cleaning System and Multilayer Nano-Mesh System allow us to automatically remove the algae from the bioreactors, dewater the biomass, and transport it to the drying equipment.

A2A's system uses water tension to wick 80% of the water on contact into a collection tank to be recycled back into the bioreactor or open pool system. On the way to the belt press the algae is passively dried even further on the Multi-Layer Nano-Mesh System.

Automated Drying

Current algae production methods require algae to dry passively in the sun and for it to be scraped off by hand. The A2A way cuts the drying and processing time down significantly and saves on the cost of labor by incorporating the tried and true design of a belt press in our drying process.

A belt press is suitable for all municipal biosolids and a wide variety of industrial solid / liquid separation applications, such as paper, petrochemical, mineral, food processing, pharmaceutical and chemical. It incorporates variable energy mixing, flocculation, gravity drainage and pressure filtration within a single mechanical framework. The belt press also offers the versatility of a wide range of sizes and extensive modular options to meet our individual processing requirements.

Automated Cleaning

A2A's Nano-Hook Cleaning System features a Velcro-wrapped ball that is the same size as the inner diameter of the bioreactor. With this we can automate the cleaning without damaging the acrylic, pvc, or glass on the bioreactors. The benefits of this type of cleaning include increased efficiency and productivity, as well as reduced labor costs.

Current cleaning methods of algae facilities require either an extensive amount of manpower to manually clean the equipment or small plastic beads that later must be filtered out. Remaining algae attached to the surfaces can diminish light penetration or contaminate future harvests.

A partnership with A2A will allow us to implement automation systems described above, to fully harness the growth potential and benefits of algae in a way that maximizes our impact and changes the landscape of industry.

IMPLEMENTATION

With A2A's superior production capabilities and plan for scaling we will change the algae production industry and seize considerable market share in several growing markets.

PHASE 1: PLAN

We will use the first round investment to fund **prospecting**, **site planning**, and **setting up the business** in that order.

Prospecting

A partnership with A2A will allow us to prospect our targeted potential sites located in Texas and Hawaii to determine the most viable location for building our first facility.

Prospecting includes testing water, sourcing facility power, examining local regulations, exploring community support, and surveying landscape & usable space, for each of our prospective sites.

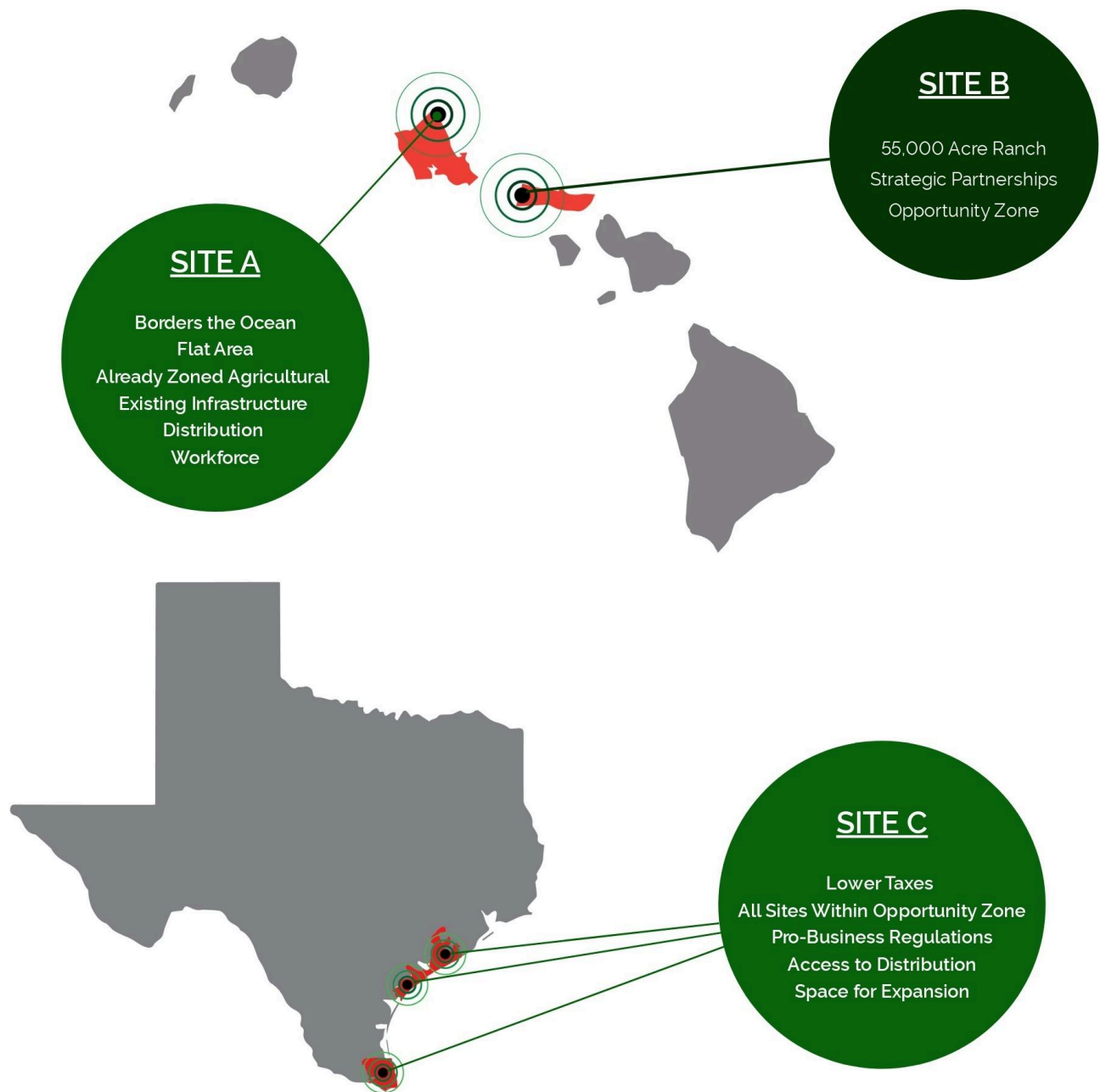
A2A will also evaluate each of their access to deep ocean water, the usability of their existing infrastructure, the potential of on-site resources and their current zoning requirements.

Potential Site A

This site is a 150 acre ex-military airbase. About a third of its land borders the ocean. Since it was originally a military airbase, it is already flat and ideal for pools. In fact, the site was used as a shrimp farm in recent years. Several pools and buildings remain and have potential to be repurposed. Even though Site A is on the expensive urbanized island of O’ahu, the property is zoned for agricultural use. This means we have a unique opportunity to have a large scale ag operation with easy access to Hawaii’s largest city for distribution and a workforce.

Potential Site B

This site is a 55,000 acre ranch formerly owned by Hawaiian royalty located on the island of Molokai. It is on sale for the first time in its history and has potential for lucrative strategic partnerships and alliances with the community. This property is highly undeveloped in comparison to the urbanized location of Site A, allowing it to qualify for opportunity zones as laid out in the “Scalability” segment of the “Viability” section.



Potential Site C

For site C, we are considering multiple locations along the Texas coast with access to nutrient rich water from the gulf. Located in a central location, site C will have national and international distribution capabilities with access to nearby ports for export. Site C offers plenty of space for expansion into a second and third facility due to the flat unused desert land that runs inland for hundreds of miles. The cost of land in these areas are the lowest of the three potential sites. With the low taxes, business friendly regulatory standards and being located within opportunity zones, a site in Texas is a great option.

Landscape & Usable Space

We will evaluate each site to determine which site meets our spatial requirements. We require 150 acres of total space for the build out of our first facility. 10 acres will be used to build structures and 120 acres for raceway pools as laid out in Phase Two. The last 20 acres will remain undeveloped to act as a buffer between the facilities and the coast, leaving the natural beauty of the beach to be enjoyed by the public.

Access to Deep Ocean Water

Deep ocean water (150 to 250 meters below the surface) is nutrient rich and has already been utilized in the algae growing industry. The access to deep ocean water will be used to fill our raceway pools, provide nutrients and to regulate pool temperatures. We will determine which potential site allows us to more easily access deep ocean water.

Monterey Bay Aquarium Research Institute (MBARI) chemical oceanographer Ken Johnson, along with co-authors Stephen Riser at the University of Washington and David Karl at the University of Hawaii, show that open-ocean microalgae obtain nitrate from deep waters as much as 250 meters below the surface. [\[12\]](#)

On-site Infrastructure & Resources

We will explore and evaluate advantages of utilizing each potential site's already existing features (both natural and man-made). For instance, many resorts need sand to maintain their beachfront that washes away with seasonal currents. Site A naturally collects wind blown sand in large dunes that we could capitalize on as an additional revenue stream.

Current Requirements for Zoning

Complying with all the local zoning requirements can be a tedious process. We plan to utilize the regulatory and zoning hurdles already overcome by previous businesses on our prospective sites. For instance, Site A is already zoned for agriculture. We will determine which potential site has the most attractive regulatory 'land use' zoning in our assessment.

Site Planning

The specific processes of site planning will depend on the findings from our prospecting. Includes calculation of equipment sizing and output, sourcing of durable sun resistant materials for facility longevity, creation of finalized facility site plans & blueprints.

Includes a comprehensive budget to build the first facility, operational costs, and a more clarified return on investment. The detailed cost report depends on the findings from our prospecting and site planning.

Setting Up the Business

We will build out the business structure, source company board members, set up legal & international business logistics of sales, receivables, and banking, obtain any required local, federal and international permits, pay filing fees, pay for legal filing & I.P. protection for provisional patents.

The specific processes and deliverables depend on the findings from our prospecting and site planning.



PHASE 2: THE BUILD OUT

The second round of investment will be used for **establishing administration, building our flagship facility, developing a proof of concept** for our bioreactor system, **conducting market research** and **creating a positioning strategy**.

Establishing Administration

This includes creating comprehensive objectives, protocols and action plans for each department, structuring & sourcing the management team (Programmer, Sales & Marketing, Biologist, Site Manager, Prospector) hiring staff and creating detailed operating procedures.

We will interview and partner with manufacturing companies to reduce upfront costs on manufactured parts and machinery customized to our facilities for the first and future facilities.

We will incorporate a system of checks and balances with moral elements using either an AI and/or a double blind 3rd party group of psychologists. The psychological evaluations of the leaders and board members will add a new layer of accountability to the leadership and ensure the power they control is never used in ways considered socially unacceptable.

Constructing the Flagship Facility

Installation of Raceway Ponds

For the build out of the flagship facility, A2A will install several of the proven-to-be viable raceway ponds to serve as a foundation to build from as we develop our proof of concept for our bioreactor design. This will allow us to expand our resources and research; bridging the gap between the upfront costs of implementing bioreactors and the long term benefits they provide.

Nutrient rich deep ocean water will supply the shallow raceway ponds. Each raceway pond is divided into a rectangular grid, with each rectangle containing one channel in the shape of an oval, like an automotive raceway circuit. Each pool contains a paddle wheel to make the water flow continuously around the circuit.

Warehouse Installation

A2A will build a production warehouse to house the harvesting equipment and processing areas. A2A will install the Alfa Laval AS-H Belt Press G3, a dewatering belt filter press that was developed from tried and true Klampress design. [\[13\]](#)

Meeting Fresh Water Production

A2A will use an atmospheric water generator to produce the fresh water needed for the facility including lab work, employee consumption, harvesting and cultivation. [\[14\]](#)

Installation of Laboratory

The lab area will provide the tools and space needed to produce cultures, conduct tests, monitor algae growth, and ensure quality from start to finish.

It will allow A2A to make new uncontaminated algae cultures and seed the raceway ponds after each cycle. We will have the capabilities to properly monitor the toxicity and contamination levels of the raceway ponds during the growth cycle and test the final product for unsafe consumption per regulatory standards. [\[15\]](#)

Air & Salt Water System

A blower will be installed to supply our air-driven circulation system. All water movement throughout the facility will depend on this blower. This eliminates the need for water pumps that consume a large amount of power. Aside from moving water, the bubbles created from the airlift will also dissolve co2 and oxygen into the system.

Building the Proof Of Concept

For the first year after construction of the first facility is complete, A2A will use two prototype bioreactors (a control and a variable) for testing viability.

The control bioreactor will be used to test the most optimal conditions allowing us to find parameters best suited for operations.

The variable bioreactor will run tests in simulated environments representing harsh growing conditions to determine our failure points.

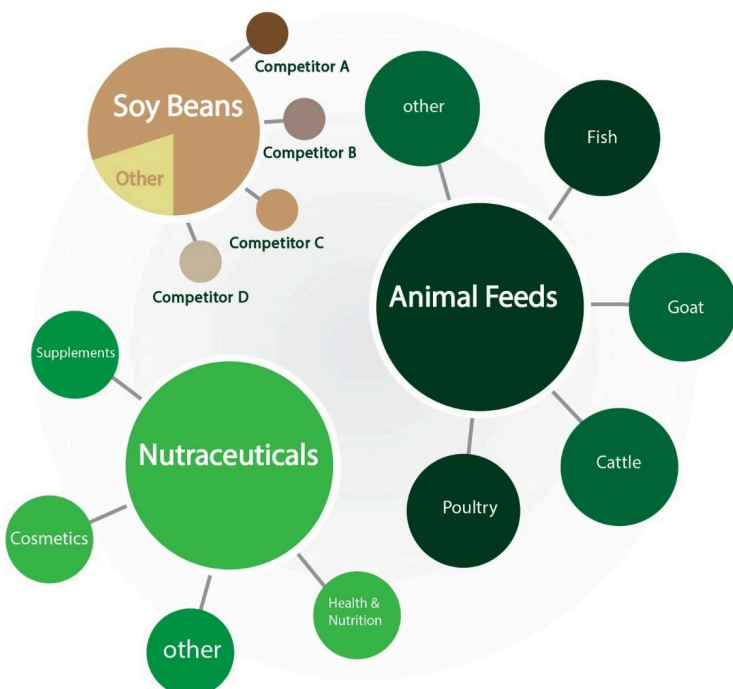
As A2A scales through desert lands, we'll pick a potential site that is within our window of viability and simulate that site's climate and water conditions with our two prototype bioreactors, before the build out of any new facility.

Marketing Strategy & Implementation

We want A2A to enter the market equipped with a clear understanding of where we stand, how to stand out and a concise plan of attack to increase revenue and market share. A2A will **conduct market research, develop a marketing strategy, create a marketing plan and integrate sales tools and software.**

Conducting Market Research

The goal of this analysis is to gain a deeper clarity of the plant protein market as a whole, better understand key players within the soybean industry and analyze the nutraceutical and animal feed markets. A partnership with A2A allows us to examine the different product applications within the nutraceutical and animal feed markets to determine how algae will compete.



Developing a Marketing Strategy

A2A will look at the internal strengths and weaknesses of our own marketing mix (product, place, promotion, price) and the external competitive landscape in terms of its opportunities & threats.

We will research and assess the cultural, demographic, social, technological, economic and political forces that create opportunities or uncertainties in the market. The end result is a detailed strategy to grow and protect our sustainable competitive advantage over time.

Creating a Marketing Plan

A2A will start by dividing the market into groups of customers (farmers, nutraceutical companies, animal feed companies, chemical companies) with different needs, wants, or characteristics then evaluate each segment to determine the most attractive one(s).

With the most attractive segment(s) targeted, A2A will strategically organize our message into captivating marketing content, sales material and assets with standardized verbiage and visual standards.

Integrating Sales Tools and Software

A2A will build a bridge from production to marketing and sales with integrated marketing software. By linking our production platform software to our sales & inventory software, A2A will be able to communicate effectively with our customers, prospects, strategic partners and associates under one cohesive messaging system and empower the sales and marketing department with the tools they need to scale efficiently.

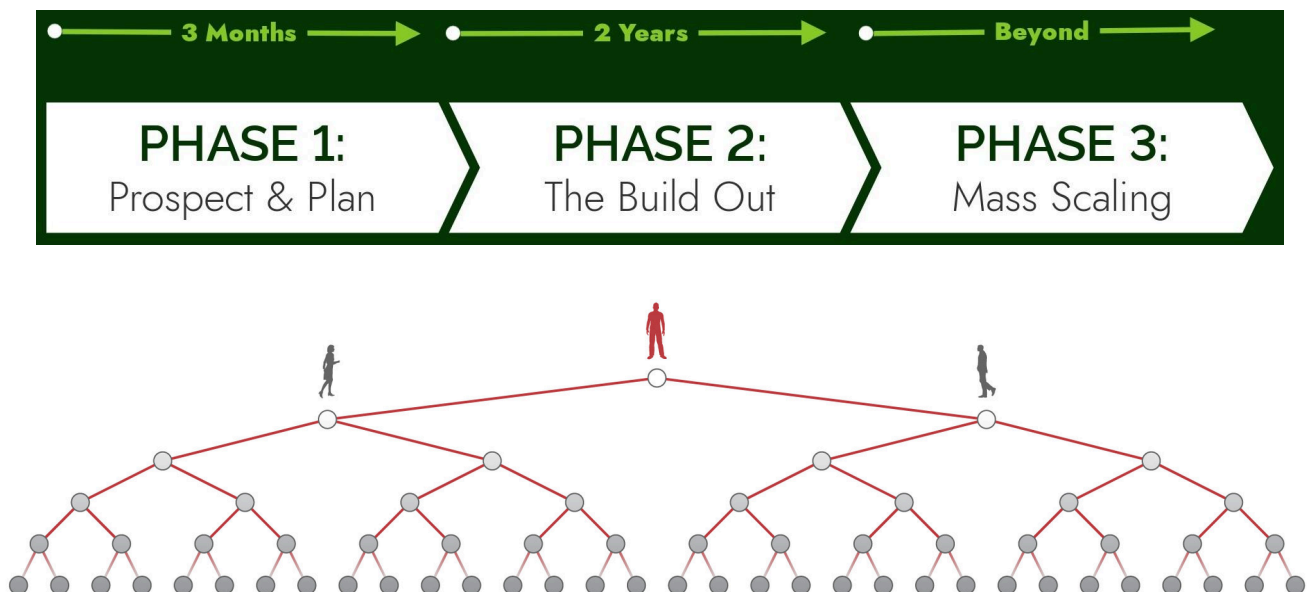


PHASE 3: MASS SCALING

The third and final round of investment will fund multi-site expansion and scaling the business to penetrate global markets.

Currently, a handful of companies control the majority of the world's food supply with the protein and sugar they produce. Competing with them head on can be dangerous. We will gain a substantial foot hold in available markets before these conglomerates can deploy calculated opposition or disruption strategies.

With A2A's flagship facility producing, A2A will conduct research to fine tune our bioreactor system, prospect for new sites in the southwest United States and go through government applications and approval processes; all at the same time. Executing these strategies simultaneously will accelerate our timeline for mass scaling.



A2A's first bioreactor facility will be self-sustainable to the point to produce enough revenue to pay for the installation of the next facility within 6 months. This exponential growth model outlines a conservative figure for 32 facilities in 5 five years. The number of 32 facilities in 5 years can be expanded by a factor of 10, with optimal bioreactor operation.

These staggering figures demonstrate how drastically different the algae growing landscape could become as A2A works toward our vision of a vast chain of self-sustaining and profitable facilities. Aside from changing the literal landscape by transforming deserts into arable lands, A2A will redefine the way a company treats its people and interacts with the environment.

THE PEOPLE & PURPOSE

A2A will carry our values forward into all facets of the organization. In doing this A2A will attract loyal partners, more productive employees, happier customers and be able to operate more efficiently with clarity and purpose as we scale.

About The Founders

John and Paul Hittner were born a year and a half apart and raised in small town Iowa; the heartland of mono-cropping and industrial farming.

At the age of 19, John moved to San Diego. He started working for, and soon bought, the pond care and aquatic nursery company, Fishy Business, INC. During that time, he discovered his passion for botany, practiced cultivation and developed a dream to help heal the planet.

John went on to successfully establish both CM Solutions, INC and Hittner Machinery, LLC, building and developing high-pressure extraction equipment from the ground up for 7 years. He elevated the companies into relevant product categories in a very competitive market.

In 2016 John became a partner with Leap Farms, LLC and M and B Vineyards, LLC in Southern Oregon, contributing his extraction system to the operation. There, he designed and implemented a processing facility, worked directly with state and local regulatory agencies on rezoning, met commercial kitchen requirements and maintained fire safety standards with volatile liquids and gasses; all while under budget.

Paul followed his artistic skills and studied graphic design, branding, sales and marketing in college. At that time, he discovered his passion for collaborating with visionaries and helping small businesses by offering perspective and clarity to their ideas. In 2010 he started the branding & design company, BizVisionary and In 2014 moved to Dallas, Texas.

Since then, he has developed processes for prospecting, qualifying, and closing clients while managing countless branding and design projects. He's built an extensive network of relationships with professionals from various fields and collaborated with other marketing agencies and media curators to manage client expectations and develop captivating marketing material and strategies.

With John's experience in cultivating aquatic ecosystems, identifying and implementing innovative production techniques, business management and product development; and Paul's experience in branding, positioning, marketing, networking and sales, they will revolutionize existing algae farming methods and capitalize on algae's incredible growth potential like never before.

Together, they will free up farm land, build meaningful connections with communities and change the way we use land for biomass.

Core Values

A2A has determined that with such a large impact on the environmental and business landscapes, it's important for that impact to be healthy for our communities and people. A2A will use the strategies implemented by tech companies that emerged from silicon valley as a template to solve problems encountered while scaling a company quickly.

Google, Facebook, LinkedIn, Twitter, Tesla Motors, Apigee and many other successful companies use a similar model for company operations. This model is the most productive and stable way to expand. It is based on firm statistics and strategies outlined in the books *The Silicon Valley Model Management for Entrepreneurship* [19] and *Smarter Faster Better: The Secrets of Being Productive in Life and Business*. [20]

LinkedIn



twitter

Google

facebook

apigee

Zipia statistics also revealed that engaged employees are **21% more productive**. [24]

Economists carried out a number of experiments to test the idea that happy employees work harder. In the laboratory, they found happiness made people around **12% more productive**. [23]

Professor Oswald said: "Companies like Google have invested more in employee support and employee satisfaction has risen as a result. For Google, it **rose by 37%**, they know what they are talking about. Under scientifically controlled conditions, making workers happier really pays off." [23]

[23] Oswald, A., Proto, E., & Sgroi, D. (2015, September 12). Oswald, Andrew J., Proto, Eugenio and Sgroi, Daniel. (2015) Happiness and productivity. Journal of Labor Economics, 33 (4). Pp. 789-822. <https://www.researchgate.net>. https://www.researchgate.net/publication/46442857_Happiness_and_Productivity

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A2A believes that by loving our people, cultivating a family environment, growing our communities and protecting our planet we can achieve our vision for a better tomorrow. We strive to build our people up in a way that does not dominate or oppress others or the planet.



PEOPLE

We believe in loving our people. Humans are special in that we all possess an incredible potential for love as well as evil; both very powerful forces. We choose to nurture and encourage the love within our people to achieve exponential impact.

We believe changing the world on a massive scale starts with treating our partners, employees & customers as people first. We will harness the incredible potential that exists in all of us, and use it for good.

FAMILY

We believe in cultivating a family environment. We will attract and retain quality people by cultivating a framework for personal and professional growth built on encouragement and empathy. We believe that when our partners and employees are supported, treated as equals and valued as individuals they will be happier, more purpose driven and ultimately much more productive. On every level of our operation we strive to treat employees like partners and partners like old friends.



COMMUNITY

We believe in growing our community. We are committed to moving humanity past the basic needs of survival by providing the most foundational elements necessary for any thriving community; affordable food and energy. Aside from nourishing the community, we are committed to bringing people together with outreach campaigns.

PLANET

We believe in protecting our planet. We believe in a company that benefits humanity without harming the planet. We are committed to building an energy efficient system of producing food and energy that nourishes the community and operates in harmony with the environment. By offsetting the production of food in non-farmable land we will provide an opportunity to free up farm land for new use.





Forge a New Path

Those of us who are awake in this age of information can see, hear and feel the levers of control all around us, but we choose to coexist with the lies. We go along with them because the truth would lead us to some disturbing realizations about how power, greed and corruption operate.

Many children of tomorrow can feel it too, even if they don't understand it. They have become known as the 'hoping and coping' generation. Paralyzed with fear and uncertainty from the distrust of the institutions that claim to champion them, many are not buying land or starting families. As a result, overmedication and addiction to screens filled with disillusion and distractions has become normalized.

I see many young people choosing comforting narratives and backing them up with opinions from the internet; all to avoid the terrifying and ever growing likelihood of an unsettling conclusion... that they're no longer free and have no way to fight or escape such a deeply entrenched system of control.

We are committed to changing this narrative.

- John Hittner, Founder - Algae 2 Automation

Change the Landscape Change the World

By 2050 we are expected to have an extra two billion people to feed. Our current farming methods simply cannot sustain the upcoming demand and are damaging the environment at an alarming rate.

The chemical fertilizers and pesticides used with genetically modified seeds (GMO's) leave nothing to anchor the soil from erosion. Our topsoil washes away along with residual poisons from the herbicides and pesticides into our water systems. Furthermore, the residual poison left in the GMO crops end up being fed to our livestock (which are fed to us).

By partnering with A2A you'll be diversifying the food supply & offsetting our current reliance on farming practices that can't sustain the upcoming demand for food & biofuel. Together we can preserve our precious farmlands by transforming desert landscapes into vast fields of self-sustaining algae cultivation systems operating automatically, in harmony with nature.

Partner with us

- ✓ Growing demand for plant proteins
- ✓ Massive support for green initiatives
- ✓ Utilization of proven growing methods
- ✓ Utilization of existing infrastructures
- ✓ Algae's exponential growth rates
- ✓ Daily harvests
- ✓ Climate resilient facilities
- ✓ Automated growing & harvesting
- ✓ Minimized operational costs
- ✓ Scaling with drastically cheaper land
- ✓ Eligible for government reimbursement
- ✓ Algae for health foods & supplements
- ✓ Product applications for dyes & extracts
- ✓ Algae for animal feed
- ✓ Algae for cosmetics

Donate



Invest



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