Research Report (Initiation of Coverage)

"Developing the new gold standard for quality cannabis"

Disruptive business model that centers on quality, duplication of results and consistency

-

Company is entering the growth phase

Target Price: 1.38 CAD (1.04 USD; 0.94 €)

Rating: BUY

IMPORTANT NOTE:
Please take note of the disclaimer/risk warning, as well as the disclosure of potential conflicts of interest as required by section § 85 WpHG und Art. 20 MAR on page 32

Note on research as a "minor non-monetary benefit" according to the MiFID II regulation: This research meets the requirements for being classified as a "minor non-monetary benefit". For more information, see the disclosure under "I. Research under MiFID II"

Date and time of completion of this research: 01/08/2019 (16:00)
Date and time of first distribution: 05/08/2019 (16:00)
Target price valid until: max. 31/03/2021

GBC AG Investment Research

AGRIOS GLOBAL HOLDINGS LTD.*5a,5b,11

Rating: BUY
Target price: 1.38 CAD
(1.04 USD; 0.94 €)

Current price: 0.375
31/07/2019 / CSE / 21:59
Currency: CAD

Key Data:

ISIN: CA00856K1003
WKN: A2N62K
CSE: AGRO
OTCQB: AGGHF
FSE: ØSA - WKN-A2N62K
Number of shares³: 110.48m
Marketcap³: 49.52
EV: 53.90
³ in m / in m CAD / fully diluted
Free float: 63.7%

Primary listing: Canada CSE
Secondary listing: Frankfurt

Accounting Standard:
IFRS

FY End: 31/03/

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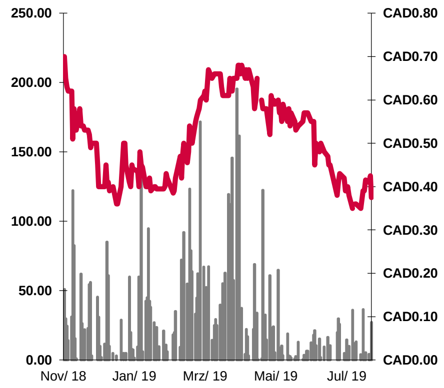
Company Profile

Sector: Agritech

Focus: Cannabis



Headquartered in Vancouver (British Columbia - Canada)

Management: Chris Kennedy (President & CEO, Director), Herrick Lau (CFO, Corp. Secretary, Director), Larry Ellison (Director, CFO (USA))

Agrios Global Holdings is a data analytics driven agriculture technology and services company advancing the latest innovations in indoor growing science.

The Company leases and manages properties and equipment for eco-sustainable agronomy and provides advisory services to support all aspects of aeroponic cultivation in the cannabis sector. Agrios is actively pursuing new opportunities to expand its portfolio of tenant growers and infrastructure assets in strategic licensed jurisdictions.

P&L in USD m FY	31/03/2019	31/03/2020e	31/03/2021e	31/03/2022e
Sales	4.04	8.40	13.50	21.84
EBITDA	-4.24	0.28	2.49	7.24
EBIT	-4.83	-0.43	1.68	5.86
Net profit	-4.87	-0.50	1.53	5.71

Key figures in USD m				
Earnings per share	-0.04	0.00	0.01	0.05
Dividend per share	0.00	0.00	0.00	0.00

Key figures				
EV/Sales	9.68	4.66	2.90	1.79
EV /EBITDA	-9.24	140.14	15.72	5.41
EV /EBIT	-0.12	-0.01	0.04	0.15
PE	-7.38	-71.47	23.49	6.30
PB	1.54			

**** Last research by GBC:**

Date: publication/target price in CAD/rating

** The research studies indicated above may be viewed at www.gbc-ag.de, or requested at GBC AG, Halderstr. 27, D86150 Augsburg

Financial calendar

EXECUTIVE SUMMARY

- Agrios Global Holdings is a company in the take-off stage, with a strong growth potential. It currently owns one state-of-the-art cultivation growing facility in Washington State that is leased to a licensed Tier 3 cannabis producer and processor. The company provides data-driven aeroponic cultivation equipment rental and growing services to cannabis producers. The company's technology can also be used for any type of indoor cultivation. The indoor aeroponic market in the USA could reach USD 40 billion annually by 2022. Moreover, the American cannabis market could reach USD 75 billion annually by 2030. Specifically, the Washington State market represented approximately USD 1.371 billion in 2017 and is expected to grow to USD $2.28 billion by 2020.

- The company had total revenues of USD 4.04 million in the fiscal year 2018/19 and is growing rapidly.

- For the fiscal year 2019/20, we expect the company's revenues to be around USD 8.40 million. The rise in revenues can be attributed to the increase in demand for Agrios' products and services and the introduction of new services to cannabis producers. We expect the company to post losses for this fiscal year of USD 0.50 million attributable mainly to a USD 1.07 million share-based payment.

- The company has proven the economics of its business model. They have hired key personnel in the last few months in order to develop new lines of services. We expect the company to launch its own brand in 2019/20 as well as to enter highly profitable sectors of the cannabis industry. By 2020/21, we expect the company to expand services into the State of Missouri.

- Three main factors will impact Agrios' growth in revenues. First the company will improve its cultivation technology and array of services. Second, the price of cannabis in Washington State should start to rise again as we are seeing the end of the contraction period. Third, we believe that Agrios will expand their service offering and establish new income sources as it enters the Missouri market in 2020/21.

- On this basis, we expect the company's revenue to continue its strong growth in the next few financial years. We estimate revenues of USD 8.4 million for the fiscal year 2019/20, USD 13.50 million for fiscal 2020/21, and USD 21.84 million in fiscal 2021/22. We project the company to post net profit in the fiscal years 2020/21 and 2021/22. The positive cash flow generated by Agrios' activities will pay for the new facility.

- As the cannabis industry matures in the USA, moving from quantity to quality, Agrios will be positioned in a niche market where their production costs will rival the lowest in the sector while their quality will be the best amongst their peers. Agrios' focus on the duplication of the unique cannabinoids mix generated in each strain could be the key to unlocking pharmaceutical partnerships. This evolution of the cannabis market into a more educated and mature sector will most definitely provide Agrios with growth opportunities.

- **Based on our DCF valuation, we have calculated a price target of 1.38 CAD (1.04 USD; 0.94 €). Against the background of the high upside potential, we assign a BUY rating.**

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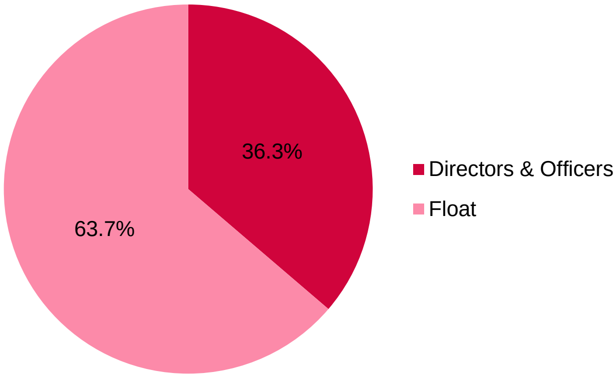
COMPANY

Shareholder structure

Shareholders in %	04/07/2019
Directors & Officers	36.3%
Float	63.7%

Sources: Agrios Global Holdings Ltd., GBC AG

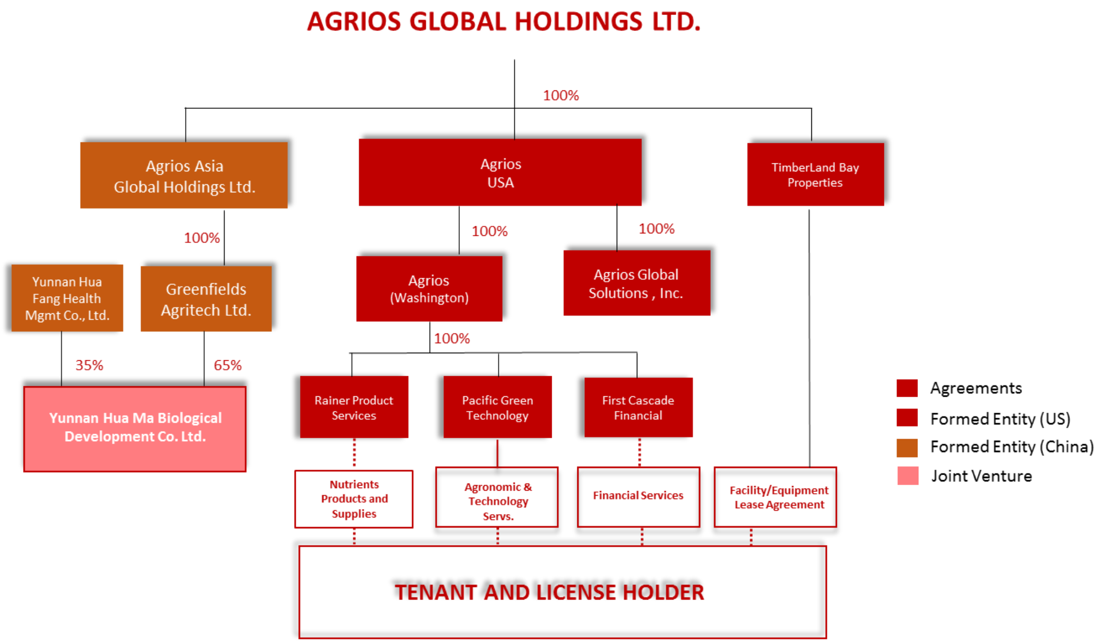


As of June 30, 2019, the company has 85,832,859 outstanding shares in circulation, 2.1M warrants issued and 13.5M performance options. The company has a substantial directors' and officers' ownership of 36.26% fully diluted. This places Agrios in a very small category of public companies in which management owns more than 25% of the total shares. It shows great confidence in their business plan and their chances of success. Agrios also has a reasonable number of outstanding shares and can raise important amounts of capital if necessary.

Corporate structure

As of June 2019, Agrios Global Holdings consists of three subsidiaries: Agrios Asia Global Holdings Ltd., Agrios USA, and TimberLand Bay Properties. While the holding company has its place of business in Vancouver, Canada, Agrios' operational headquarters are in Mason County, Washington, USA. The company also has a footprint in China.

Corporate Structure



Sources: Agrios Global Holdings Ltd., GBC AG

Agrios USA owns Agrios Global Solutions Inc. and Agrios (Washington). They have their main operation site in Mason County, near Seattle, Washington, where they lease their facility and equipment to a Tier 3 cannabis producer, through a leasing agreement provided by their subsidiary TimberLand Bay Properties. The facility consists of 7 cultivation rooms and 1 processing room with a total of 1,206.04 m².

Grow/cultivation rooms using Agrios' technology and equipment

Source: Agrios Global Holdings Ltd.

The company also provides a comprehensive suite of services to cannabis producers through another subsidiary, Agrios (Washington). These services include Sales of Nutrients, Products & Supplies, and Agronomic & Technology Consultation.

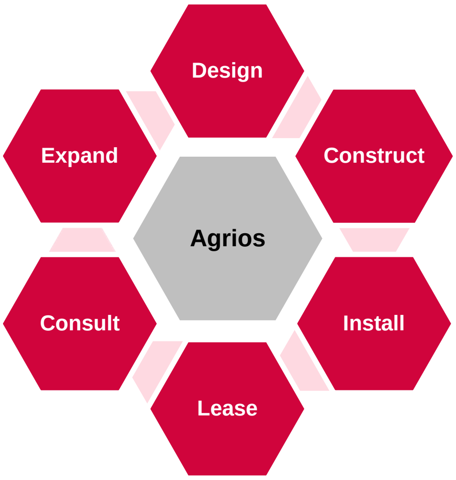
Agrios Asia Global Holdings Ltd. owns 100% of Greenfields Agritech Ltd. which formed a Joint Venture with Yunnan Hua Fang Health Mgmt Co. Ltd in order to develop technology for using hemp fibers as a replacement for plastic. Greenfields Agritech Ltd. is operating a hemp field plantation in China. The company was just awarded an industrial hemp cultivation permit in the Yunnan Province[1]. Their partnership with Yunnan Hua Fang Health Mgmt Co. Ltd is specialized in manufacturing and distributing homeopathic products in China.

[1] AGRIOS GLOBAL HOLDINGS LTD. SUBSIDIARY RECEIVES THREE PERMITS INCLUDING INDUSTRIAL HEMP CULTIVATION PERMITS, Vancouver BC / NEWSWIRE / May 7, 2019

Business Model

Agrios' business model consists of providing a comprehensive suite of services to licensed cannabis producers. This materializes by leasing state-of-the-art cannabis indoor aeroponic growing facilities equipped with their latest data-driven technology, collecting actionable data on 32 key cultivation metrics with the help of high precision sensors.

Agrios' business model relies on 6 main axes



Sources: Agrios Global Holdings Ltd., GBC AG

The collected data is then sent in real time to a proprietary software that allows the cannabis producer to adjust any variable in the facility at any given moment with the touch of a button. Agrios unique selling point is that their facilities ensure the optimal conditions to maximize yield and consistency. They use the precision of data-driven agronomy and merge it with the benefits of aeroponic cultivation resulting in a 100% bio and environmentally controlled facility. Altogether, Agrios' data-driven agriculture technology integrated solution can help producers harvest cannabis with the highest quality and consistency coupled with one of the industry's lowest variance of active cannabinoids and other active molecule concentration.

Operations

Agrios builds and then leases state-of-the-art cultivation facilities to state-licensed producers. Through its various subsidiaries, Agrios provides several services, which include but are not limited to:

- Equipment leasing
- Nutrient and supplies procurement
- Bio and video monitoring technology
- Consulting services for agronomy
- Real time monitoring software
- Financial administrative services

As for China, the company's subsidiary Agrios Asia Holdings subsidiary holds one industrial hemp cultivation license, one hemp import/export permit, and one food-trading permit. With those three accreditations, Agrios Asia Holdings can produce as well as import and export hemp internationally. They can also buy and sell pre-packaged and non-packaged food products including specialty foods, health foods and nutraceuticals. The company is also allowed to sell both to retail and wholesale market channels. Additionally, Agrios Asia is awaiting the results of laboratory testing of their prototype of hemp disposable cutlery (such as straws, chopsticks and utensils). If the tests have a positive outcome, the company could start producing 100% biodegradable straws and other single use utensils such as chopsticks from hemp or opt for a royalty model. Over 57 billion wooden chopsticks are produced in China each year. Agrios hemp license in China is truly is unique. To our knowledge, no other publicly traded company owns hemp cultivation licenses in China. Even if the value of this acquisition is difficult to cypher at the present, it could prove transformative for the company over the long term as the hemp market in China is projected to reach USD $1.5 billion by 2020.

Agrios' core competencies

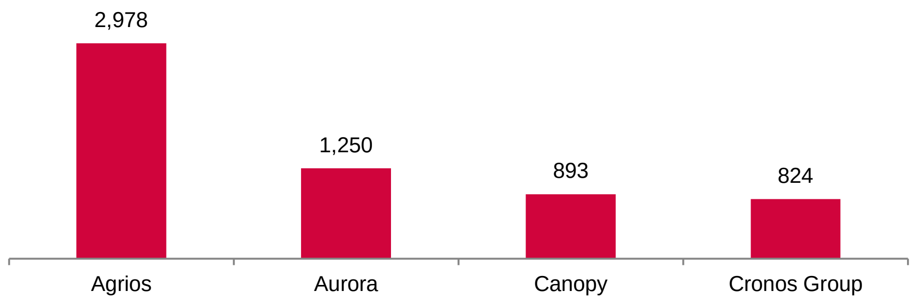
Agrios focuses on optimizing and maximizing cannabis cultivation in indoor growing spaces using data-driven aeroponic technology. The company is capitalizing on the advantages of indoor cultivation: low operational expenses (Opex), high quality, high yield in a fully controllable environment. Furthermore, as there is no soil, the cultivation process does not produce any organic waste from transplantation or harvesting. Consequently, it eliminates the need for pesticides or fertilizers. Additionally, a greater number of plants can be cultivated per m² because the roots do not compete with one another for nutrients: they are hanging from the growing bed and are sprayed constantly with water and nutrients.

Agrios' Aeroponics technology

Sources: Agrios Global Holdings Ltd.

Aeroponic cultivation is highly efficient for many other reasons: the number of plants lost from cloning to harvesting is very low and the harvest cycles are shorter. Cannabis plants grown in soil need an average of 90 days per growth cycle. Agrios has cycles of 73 days and they are committed to further shorten those cycles. Agrios' technology also drastically reduces the amount of water needed per plant, approximately 90% less than conventional cultivation, by collecting and reusing water not absorbed by the plants.

Quantity of Cannabis (g) produced per m²

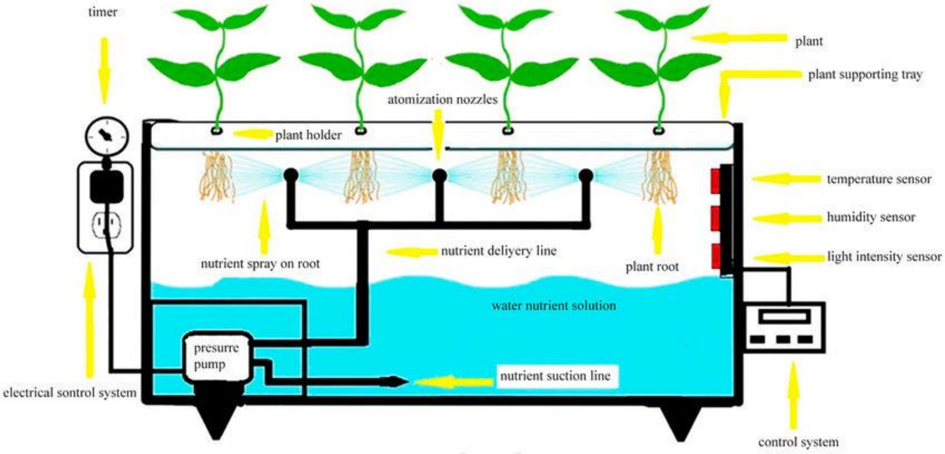


Sources: Agrios Global Holdings Ltd., GBC AG, Aurora, Canopy, Cronos Group

Nevertheless, aeroponics also has a few drawbacks. However, Agrios has overcome these drawbacks and the solutions Agrios found have become the keystones of their value proposition. First, in order to maximize indoor aeroponic efficiency, one must minimize the number of variables at play. Agrios does so by monitoring and controlling, in real time, over 32 variables of their cultivation rooms: temperature, humidity, lighting, water usage, nutrient mix, ventilation, and many more.

Every element of control requires a multitude of high precision sensors. These sensors collect information a few times per second and the data becomes actionable in real time. By monitoring the growing rooms in real time, the software platform notifies the producer of any issues concerning water supply, temperature, ventilation, etc. should they arise. The facility also has back-up power solutions in place in case of electricity outages, thus securing continuous monitoring. It is important to note that their system is scalable and adaptive to any size of desired crop and cultivation area. Finally, because the facility is controlled electronically it reduces the number of employees needed for cultivation monitoring. Agrios reduces labor by 80% compared to conventional harvesting.

Aeroponics plant growing system with computer-controlled techniques

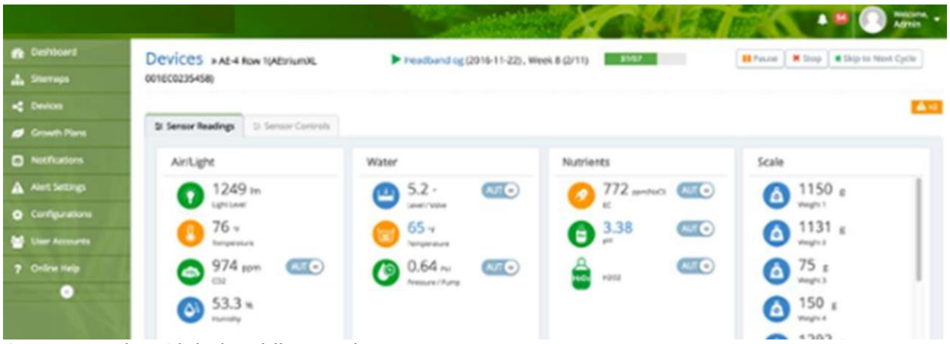


Source: Journal of Plant Interactions: Modern plant cultivation technologies in agriculture under controlled environment: a review on aeroponics

Agrios' technology provides the cannabis producer with consistency in crop quality and yield for every single growing cycle by enabling an exact replication of growing conditions. By monitoring and modifying key elements such as water, lighting, nutrients, humidity and many more in real time, the company has gained a massive data-base that they analyze and cypher in order to develop the best cultivation plan for a multitude of different strains from cloning to harvesting. As if material data collection was not enough, the company also collects organic data.

Agrios takes a multitude of organic samples every day from every cultivation room to analyze the chemical components and the inner structure of the cannabis plant. The company is able to establish not only the correlations between the controlled variables in their facility and the way the monitored plant is growing on a general scale but can actually correlate very precise data such as the effect of increasing a specific nutrient on a specific day with its repercussion on the chemicals present in the plant on the next day. The aggregation of both material and organic datasets is really setting Agrios apart from all the competition. For each strain, Agrios has a proprietary growing solution including daily adjustment of nutrients, light, water and all the other controlled variables.

Agrios data-driven solution software



Source: Agrios Global Holdings Ltd.

This allows them to duplicate the exact same growing results in any city, state, or country, making their solution attractive for major players such as pharmaceutical companies. Agrios also provides their clients with proven harvesting results, enabling them to precisely forecast their financials. Their turnkey facility coupled with their financing solutions reduces the knowledge and the capital investment barrier that prevails in this industry for new players.

To conclude, Agrios' technology is ready to face not only today's highly competitive sector but also thrive through the upcoming important challenges in the industry. Currently, the cannabis industry does not apply any standards. However, when the industry will mature, we believe that the need for documented strain purity, international regulation and traceability will become the gold standard. This will be even more important for the pharmaceutical sector. Agrios is clearly developing their technology in order to ensure and exceed compliance with the strict standards that will be enforced in a near future in the cannabis sector.

Because of their unique solution, they can offer cannabinoids and active molecules with the lowest variance from one harvest to the next and can, consequently, allow any pharmaceutical company to deliver a medication as exact as technologically possible, limiting the impact of the entourage effect. As new studies suggest, there are over 400 active chemical entities, with more than 60 being cannabinoid compounds in a cannabis plant[2]. It is the ratio of all these compounds acting together that defines the beneficial or negative effects of the product consumed by the client, called the entourage effect. It is therefore, of the utmost importance, to limit the changes in these active molecules ratio to ensure duplication of user experience or treatment efficiency time after time for a user or a patient.

[2] Atakan Z. Cannabis, a complex plant: different compounds and different effects on individuals. *Ther Adv Psychopharmacol*. 2012;2(6):241–254. doi:10.1177/2045125312457586

Historic company development

Date	Development
February 2017	Agrios Global Holdings is incorporated
February 2018	Entered into a merger agreement with TimberLand Bay Properties
April 2018	First facility using Agrios Technology begins propagating
June 2018	Incorporation of Agrios Asia
July 2018	First plants using Agrios Technologies are harvested
October 2018	Agrios receives prospectus clearance
November 2018	Lists on the Canadian Securities Exchange
December 2018	Agrios Asia acquires Greenfields Agritech
February 21, 2019	Obtained OTCQB Listing

Sources: Agrios Global Holdings Ltd., GBC AG

The Company was incorporated in British Columbia, Canada, on February 18, 2017. The Company's head office is located at 1980 – 1075 West Georgia Street, Vancouver, BC, Canada, V6E 3C9. In February 2018 they entered into a merger agreement with Timber-Land Bay Properties. This allowed them to lease their facility to a Tier 3 Licensee who began propagation on the site. Another milestone in the company's history is the creation of Agrios Asia, which focuses on the development of hemp-based plastic replacement products. The first plants using Agrios Technology were harvested in July 2018 in Washington. On November 12, 2018, the Company commenced trading on the Canadian Securities Exchange ("CSE") under the symbol "AGRO". Since February 21rst, Agrios is listed on the OTCQB under the symbol "AGGHF".

Board of management

Chris Kennedy

Chris Kennedy graduated from the University of Utah with a degree in Communications, after which he began his professional career at the Utah Educational Savings Plan. From 2009 to 2016 he worked at Alliance Health, a digital health company building innovative direct-to-patient programs with pharmacy and pharmaceutical partners. There he held different management roles from VP Operations to VP Strategic Initiatives. He also acted as Managing Director at Inflection Point Strategies, LLC. Before becoming President, CEO and Director at Agrios Global, he gained extensive experience in various roles in business development which included his tenure as Director of Business Development of my529 (Utah's direct sold 529 plan), where he had great success in increasing advisory assets.

Herrick Lau

Mr. Lau earned his undergraduate and graduate degree from Simon Fraser University in British Columbia, Canada. He is an investment banking professional and Chartered Financial Analyst (CFA) and has acted as Director or CFO of multiple public companies in the mining industry (such as Bunker Hill Mining Corp., Copper One, Inc., and Novo Resources Corp.) as well as in the agriculture sector (e.g. First Growth Holdings Ltd., Pan American Fertilizer Corp., Lifestyle Delivery Systems, Inc.). He is Managing Director at Baron Global Financial Canada Ltd and Secretary and Chief Financial Officer at Jayden Resources, Inc. and Secretary. At Agrios Global Holdings Ltd., he occupies the position of Chief Financial Officer, Secretary and Director.

Larry Ellison

Larry Ellison graduated with a master's degree in Accounting from the University of Missouri-Columbia. He began his career as a partner at BKD CPAs & Advisors before founding multiple companies of his own (Ellison Financial Services of Florida, Ellison & Company, CPA PC, EllisonLiggett Litigation Consultants). He also is a former partner with KPM CPAs. As a Certified Public Accountant (CPA), he has over five decades of expertise in finance, mergers and acquisitions, forensic accounting, business consulting, business management and auditing. Mr. Ellison is member of the Missouri Cannabis Trade Association and part of the Executive Board, the Business Committee and the Legislative Affairs Committee. He has a deep knowledge of the recent changes in laws concerning cannabis and serves as the CFO of Agrios Global USA and its subsidiaries.

Robert Lanterman

Since 1980, Robert Lanterman has had a successful career in business and product development. He has a vast experience in the luxury brands retail sector, working with accounts such as Neiman Marcus, Macy's, Holt Renfrew, Saks Fifth Avenue and as Director of Wholesale at Gucci International. As a former Brand President and Director of Sales, he is highly proficient at building regional sales teams and conceptualizing innovative marketing styles. Since 2015, he has been working with Organa Brands, a pioneer brand incubator in the cannabis industry. He was instrumental in developing and marketing a great number of products, and has been Strategic Account Manager at O.penVAPE for over four years. At Agrios Global, he makes great use of his experience as VP Product Development.

Dr. Curtis Livesay, Ph.D., CCA

Dr. Livesay graduated from Illinois State University with a Master's in Interpersonal Communication. He then went on to conclude his PhD studies at the University of Iowa in 2012. He is a Certified Crop Advisor and a member of the American Society of Agronomy (ASA), the Crop Science Society of America (CSSA) and the Soil Science Society of America (SSSA). He founded Dynamite AG in 2012 and has since been working with over 15 different crops including commercial crops like corn, soybeans and wheat, as well as specialty crops like giant pumpkins, bananas, and cannabis. Curtis Livesay has provided consultation services for crop-yield contest champions and has numerous clients with noted successes in increased crop yields. He leads agronomy seminars and gives speeches in the agricultural sector.

Andrew Lange

Andrew Lange has attended the University of Iowa studying Bioengineering and Genetics. He has launched several successful businesses, the first of which while still a student. He has explored a great variety of industries including mechanical design, engineering, construction, real estate development, and biotechnology. Mr. Lange has developed an expertise in engineering for the cannabis sector and other high value crops and has become an authority on aeroponic cultivation. He has designed and engineered almost 200,000m² of fully automated indoor cultivation space. At Agrios Global, he holds the position of Chief Technical Officer.

Other directors

Other directors of the management board include J. F. (James) Foster with experience in commercial property management, Savio Chiu, a Chartered Professional Accountant, Leo Robinton, VP of Business Development, and Vania Gaudia, who has a comprehensive knowledge of business operations across multiple sectors. The Managing Director for Agrios Asia is Stephanie Wong with more than 20 years of experience in direct investment, corporate finance, and mergers & acquisitions. Ms. Wong currently also serves as a Non-Executive Director of TasCann Limited, an Australian cannabis company.

Technical advisors

The company has retained two technical advisors, Dr. Jill Clapperton, an elected board member of the Pacific Northwest Direct Seed Association, and Ray Lok who owns Evergreens Republic, a USDA certified organic commercial aquaponics farm. Furthermore, Michael Hammer has been appointed as Strategic Advisor to Agrios Global. He is CEO and founder of Atomic Brand Lab, a company that has been working with clients such as PepsiCo, Starbucks, Ford and McDonald's. He has won Cannes and Effie awards for creativity and advertising effectiveness and currently advises start-ups as well as Fortune 500 companies.

MARKET AND MARKET ENVIRONMENT

Agrios Global Holdings is a company developing a versatile solution for data-driven aeroponic indoor cultivation, a versatile solution that they currently apply to cannabis. In order to understand their market, we must first look independently and then connectively at their three business pillars: data driven Agritech, aeroponic indoor agriculture, and cannabis cultivation.

Agritech Market

Agriculture is going through an innovation and digitalization revolution. The agricultural sector that gathers together innovative solutions to better feed the world is called Agri-food. This market includes solutions such as Nano-fertilizers, artificially grown animal protein or new direct internet-based marketplaces for crop producers and clients to conduct their transactions one-on-one. The Agrifood sector is divided into two segments. The first segment is Foodtech, which focuses on manufacturers, retailers, restaurants and consumers. The second segment is Agritech, which is comprised of the technologies used by farmers.

The world's population is currently 7.7 billion people and it is growing at a rapid rate. By 2025, it should be 8.7 billion and will reach up to 11.1 billion by 2100[3]. The global food and agriculture industry are currently estimated to be worth a staggering USD 8 trillion[4], employing more than 40% of the global workforce. Moreover, it is one of the sectors contributing the most to global warming and environmental deterioration. As more people walk the earth, more food will be needed. In contrast, the numbers of farms in the US steadily declined from 2007 to 2018. Also, the total area of farmland used in the US diminished by 5% from 2000 to 2018[5]. In order to face the challenge of nourishing 10 billion people, agricultural production will have to rise by 70%[6]. Since the land used for farming is shrinking, each acre will have to see an important increase in effectiveness and productivity. More importantly still, more land will have to be made available for farming. This additional acreage will not come from the usual green meadows but rather from indoor facilities located within urban areas.

Not only will the world need more food, but also, as Bennett's law states[7], greater food diversity. Yield plateauing is another problem that the Agrifood market is trying to solve. As an example, rice and wheat have seen a halt in their yield increase in some parts of the world. As more food is needed and available lands are shrinking due to urbanization and expanding cities, the race has started to find new ways of producing food or to optimize the growing process[8].

As a result, in order to face these challenges, farmers need to be more than farmers. They need to be legal experts, data analysts, accountants, geneticists and economists. Not only is the agricultural sector going through a radical change, but the profession is also reinventing itself. While agriculture is still the least digitalized sector of all major

[3]https://www.un.org/development/desa/en/news/population/world-population-prospects-2017.html
[4]https://www.plunkettresearch.com/statistics/Industry-Statistics-Global-Food-Industry-Statistics-and-Market-Size-Overview/
[5]Statista
[6]https://www.economist.com/technology-quarterly/2016-06-09/factory-fresh
[7]https://www.pnas.org/content/108/50/19845
[8]https://techcrunch.com/2018/11/01/agrifood-the-8trn-industry-thats-worth-your-salt/?guccounter=1&guce_referrer_us=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_cs=HewguoGXSS2GnQv9fzzEnA

industries, the Agrifood market is growing rapidly. In 2018, the Agrifood sector received funding of over USD 16.9 billion, which is twice the amount of 2016. The sector leaders are the USA with USD 7.9 billion of investments, followed by China and India with respectively USD 3.5 and USD 2.4 billion[9]. With changing consumer demands, many solutions are focusing on tackling issues such as the natural resources "consumption", food waste, chemical residue, opaqueness, traceability, and food safety, etc.

Over 27%[10] of the total 2018 Agrifood investment was made into smart farming. Smart farming uses modern technology to increase the quantity and quality of agricultural products[11]. It includes solutions such as soil scanning, data management and the Internet of things. The objective of smart farming is to transform farming from an analog operation into a fully digital one. The digitalization of the farming process can unlock precision farming, by precisely measuring variations within a field and adapting the farmer's strategy accordingly[12]. By doing so, farmers can increase the productivity and the effectiveness of their land. Moreover, they can monitor their use of pesticides or fertilizers. In indoor facilities, precision farming allows the farmers to control almost every variable: temperature, humidity, lighting, air quality, water, nutrients, etc. It greatly reduces the uncertainty of the growing process and makes the duplication of results from one growth cycle to the next one possible. All these systems can be gathered into one unit in the form of a farm management software with proprietary data processing algorithms. These systems become the central nervous system of the farmer's entire operation. Indoor farmers are starting to embrace this digital revolution. As approximately 46% of US cannabis produced is grown in indoor facilities, 23% in greenhouses and 31% outdoor, there is a major market for these systems. And it seems that even traditional farmers are now massively investing in technology. Recent numbers show that they spend in excess of $ 410 per m² on the implementation of new technologies. Out of this amount, $ 120 is spent directly towards the implementation of managing tools that increase operation efficiency. Over 90% of indoor farmers believe that they can increase their harvest yield with data analytics. Combined software and hardware installations could save up to $ 70 per m² of operation costs for indoor cannabis producers.

Genomics

Another Agritech sector on the rise is the precise manipulation of genetic material. This new technology allows farmers to rely on improved varieties of plants that can be tailored to answer specific needs. Genome editing enables the alteration of a plant or crop genome to give it specific properties. Farmers can choose plants that would need less of a certain nutriment or less light, that can be resistant to floods, or pests, or that have a higher yield.

Precision farming and genomics in the cannabis industry

Precision farming and genomics are at the base of the indoor cannabis industry. Since some producers are caught in a race of producing more and faster, they are finding part of the solution in uncontrolled growing surface expansion. It leads them to focus their vision exclusively on yield rather than profitability. However, some jurisdictions are limiting the total growing superficies per license, rendering this model useless. Some grow-

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[9] https://www.forbes.com/sites/jennysplitter/2019/03/08/the-agtech-industry-may-be-growing-up-agfunder-reports/#2c27e049335a

[10] https://research.agfunder.com/2018/AgFunder-Agrifood-Tech-Investing-Report-2018.pdf

[11] Smart Farming is key for the future of agriculture, FAO United Nation. 2017, https://www.schuttelaar-partners.com/news/2017/smart-farming-is-key-for-the-future-of-agriculture

[12] https://www.schuttelaar-partners.com/news/2017/smart-farming-is-key-for-the-future-of-agriculture

ers are, therefore, looking into other ways to maximize their square meter production. One attractive solution is to use both data-driven farming and genomics.

The cannabis cultivation industry has particularities that make these technologies even more attractive to farmers. Cannabis is one of the most labor-intensive crops to grow. One reason for that is data collection. As cannabis requires very specific conditions to grow well farmers must ensure that these conditions are optimized. In a typical cannabis plantation, over 9% of the employees' time will be spent on collecting data. The smaller the facility, the more time a farmer would spend per employee on collecting data. Therefore, small farms can gain on employees' productivity and lower their costs by implementing a precision farming management software linked to different captors in their facility. Even if the implementation of such technologies is capital intensive, many cannabis farmers are starting to recognize the need for using them.

However, having monitoring sensors and a management software does not equal having smart precision agriculture. Farmers need actionable data. This data can only be acquired if sensors with low variance and high precision are installed at precise locations within their facility. This is true no matter which variable one wants to monitor. Furthermore, the software needs to allow farmers to do more than just remotely switch on and off the lights in a cultivation room. Instead, the software needs to calculate the exact impact of the lighting on the canopy they are growing and let them compare this with past data to maximize future results. A good management system should make this possible for each variable of every harvest.

No matter if a farmer produces cannabis for the pharmaceutical or the recreational market, the quality of their product will be the distinctive element that will assure their survival in these competitive markets.

The quality of a cannabis product will be defined by beauty, the quality of growing (organic farming with no contaminants or pesticides), the quality of the strain (their reproductively), the quality of experience (desired effect is the same for one brand throughout different dispensaries) as well as the quality of effect (precise control of the concentration of THC and CBD molecules as well as more than 400 active molecules in the case of medical applications).

All these qualities can only be achieved with the help of smart farming and genomics. Companies providing such solutions will profit greatly from the digital farming revolution. Cannabis producers will massively invest in smart solutions in the next few years in order to stay competitive and currently only Agrios is offering this technology coupled with top genomics analysis.

Indoor farming market

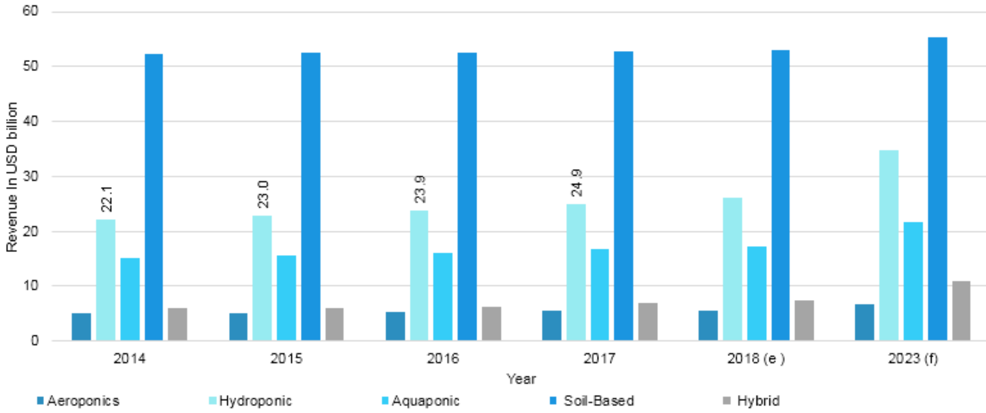
In 2016, the indoor farming market in the United States was valued at just over USD $23.75 billion. Research indicates that it could reach over USD $ 40 billion annually by 2022 for a CAGR of 9.65%[13]. Arable soil scarcity, climate change and higher recurrence of extreme weather events are accountable for this shift from outdoor towards indoor farming. North America is the largest market for indoor cultivation. As no dominant player has emerged yet, the market is still very fragmented. The indoor farming sector will ac-

[13]Indoor Farming Technology Market by Growing System (Hydroponics, Aeroponics, Aquaponics, Soil-based, Hybrid), Facility Type, Component, Crop Type (Fruits & Vegetables, Herbs & Micro-greens, Flowers & Ornamentals), and Region - Global Forecast to 2022

celerate its growth rate with time as it shelters producers from global warming's negative impacts on cultivation.

Indoor farming also has a higher yield compared to traditional or greenhouse farming. It has the advantage of a controlled environment and can discount many of the often-adverse outdoor agricultural variables such as to much or not enough rain or sunshine, soil acidity, pests, droughts, etc. Under the indoor optimal growing conditions, farmers achieve more harvesting cycles per year, each cycle being shortened by the optimization of the indoor facilities' conditions.

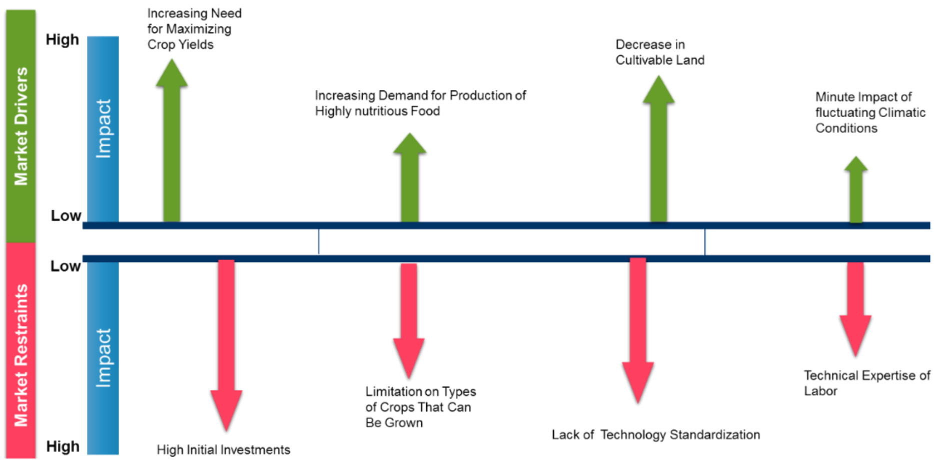
Indoor Farming Market: Revenue (in USD billion), by Growing System (2014-2023)



Source: Mordor Intelligence

Out of all the indoor growing solutions, the aeroponic method is perceived as the front-runner in terms of yield and harvest cycle period. Aeroponic agriculture consists of having plants hanging from a cultivation bed and constantly spraying the roots with water and nutrients. Aeroponic cultivation, therefore, eliminates the need for soil and the high cost of soil disposal. Additionally, it eliminates all the soil manutention from transplanting a plant that has outgrown its container to a bigger one, to soil maintenance, inspection, and many more. The plants are less prone to pests, which in turn, leads to the elimination of pesticides. Finally, a very small water footprint since nutrients and water are collected and reused. the facility has achieved a reduction of 90% of the water compared to traditional cultivation. These advantages are key when faced with the future demands for food and, specifically addressing the consumers' needs and wishes for organic and pesticide-free vegetables, herbs, fruits and plants.

Advantages and Disadvantages of indoor agricultural facilities



Source: Mordor Intelligence

Adaptability is another keyword with indoor farming. Due to its flexibility, indoor farming makes it feasible to harvest food locally and modify one's production according to specific customer needs.

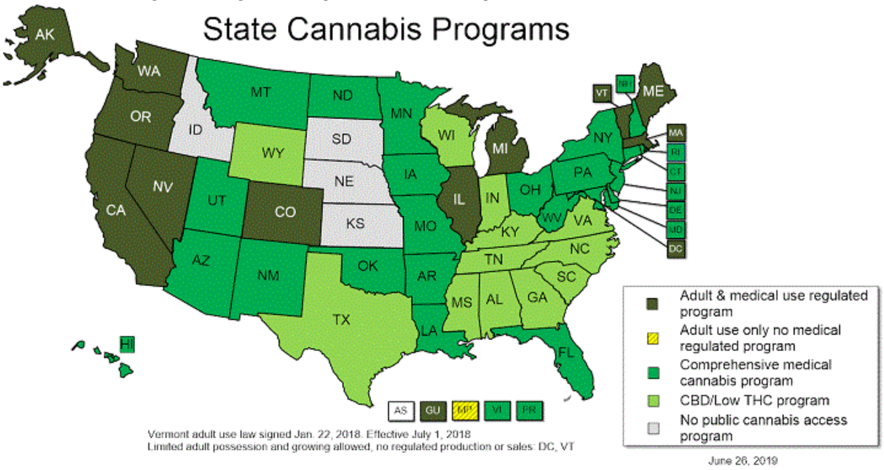
Therefore, even if the initial capital expenditure is higher, the company has more flexibility and adaptability to follow the market's needs and trends, as indoor aeroponic cultivation can be used to grow greens, hops, fruits, vegetables, vine crops, flowers, microgreens, herbs, cannabis, and mushrooms. Therefore, even if a facility produces a specific tomato and that specific tomato comes out of fashion, the farmer can simply change to, for example, red bell pepper cultivation in the next cycle without downtime. Therefore, the rapid transition from one cultivation to next next protects the capital injected in the acquisition of such facilities and reduce the farmers' financial risk. All these advantages come into play as aeroponics is projected to be the fastest growing sector of indoor cultivation types in the next few years.

US market for cannabis

Early laws against the use of cannabis began to appear in the US at the beginning of the 20th century. By the mid-1930s it was considered a drug in all states and its use finally completely banned in 1970 with the Controlled Substances Act (CSA).

Under the CSA it is (still) considered a substance with Schedule I status, meaning it has a high potential for abuse and no potential medical use. In 1996, the state of California pushed towards its legalization by passing Proposition 215, the Compassionate Use Act. In the following years, other states followed suit and by today the medical use of marijuana is legal in 33 states.

Laws on marijuana by state (June 26, 2019)

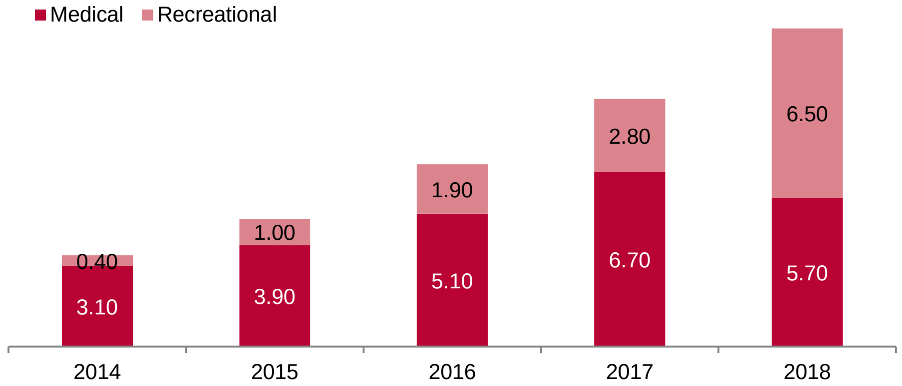


Source: National Conference of State Legislatures

Another upward trend started in 2012, when Washington State and Colorado legalized the use of cannabis for recreational purposes, the second also allowing personal cultivation. As of today, 11 states and Washington, D.C. have legalized the recreational use of cannabis. However, on the federal level, cannabis use is still illegal, and it is still classified as a Schedule I drug.

This led to conflicting legal situations when federal interference with cannabis providers increased. The 2014 Rohrabacher–Farr amendment effectively prohibited federal prosecution of individuals that were adhering to their state's cannabis laws. Currently proposed bills all point into the direction of decriminalization and federal reform. We expect more states to legalize both recreational and medicinal cannabis use in the next few years leading to federal legislation in the next five years.

Legal cannabis spending (in USD billion)



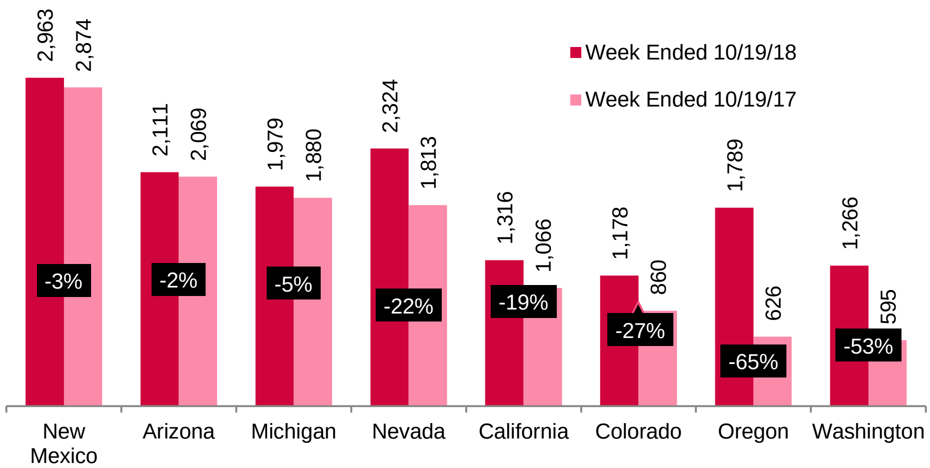
Sources: BDS, Jefferies estimates

The American cannabis market should cross the USD 20 billion mark in 2020, up from USD 9.5 billion in 2017. By 2030, it could reach USD 75 billion. The global cannabis market could reach USD 130 billion by 2029.This new sector of the legal economy has seen an annual 29% CAGR from 2014 to 2019 in the United States alone.

The Washington State market

In Washington State, all cannabis licensing is regulated and enforced by the Washington State Liquor and Cannabis Board (LCB). The LCB has divided cannabis licenses into three types: producers, processors, and retailers. The production licenses are subdivided into three categories according to maximum size of the canopy permitted at the facility: up to 200 m² (Tier 1), from 200 m² to 1000 m² (Tier 2) and from 1000m² to a maximum of 3000 m² (Tier 3). As discussed earlier, Agrios Global Holdings' facility is large enough for a Tier 3 producer to operate at maximum capacity.

Average Wholesale Cannabis Prices Versus One Year Ago (price per pound)



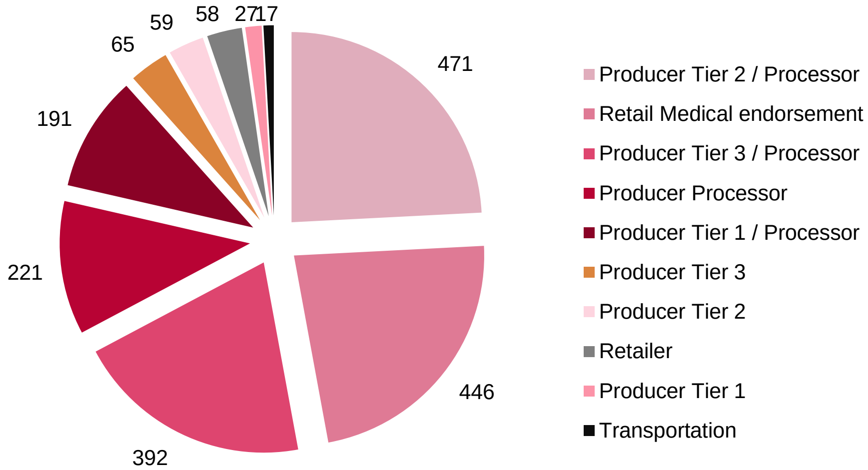
Sources: Cannabis Benchmarks, GBC (1 pound equal to around 453 gram)

As the oldest legal cannabis market in the US (along with Colorado) we consider Washington's market to be mature and as such it can serve as a model for the development of the sector in other states. The market basically went through four important phases: exaltation, uncontrolled growth, price contraction, consolidation and regulation.

In the last seven years, the state has seen massive amounts of capital inflow as entrepreneurs have sought to capitalize from the first legal cannabis market in the US. A significant amount of resources was deployed to build up the production, processing and retail sector. There then followed a phase of uncontrolled growth. Every player wanted to secure a part of the pie as big as possible. Negative cash flows were common among producers, distributors and retailers; their capital needs being fueled by promises of future profits. That led the sector to a massive overproduction and a price contraction phase followed. Since supply and demand were out of equilibrium, cannabis prices went into a free fall until the end of 2018. The Washington state market is now entering a phase of consolidation and regulation as the LCB is implementing new norms of traceability and has stopped issuing new production licenses. This will lead the market into a healthy competitive state that will pave the way for a profitable and stable industry while maximizing the state's revenue intake.

The state of Washington has issued over 1,450 production licenses since cannabis legalization. There have been over 1,000 production facilities in operation for a total of 7.5 million inhabitants. In 2017, the last official numbers available, Cannabis retail sales represented a USD 1 billion market. Cannabis processors' sales accounted for over USD 500 million and producers generated revenues of over USD 150 million. The market's rapid expansion growth rate has now slowed down and estimates predict that the entire market could be worth $2.28 billion in 2020.

Washington State marijuana active licenses



Source: Washington State liquor and cannabis board

Because of the tier-licensing concept chosen by the LCB, there is a great discrepancy between large and small cannabis producers or processors. Some 857 of the total licensed companies have accumulated accumulated revenues of below USD 500,000 since they obtained their permit. While these companies are trying to survive in the low-price market, the top producers are all increasing their share of the market and their monthly revenues. So, even if the market has withdrawn from its rapid expansion phase, we believe there is plenty of room for low-cost producers to increase their production to the maximum allowed by their license and gain market shares. Another consequence of the tier-licensing concept is that cannabis cultivation cannot rely on economy of scale due to the maximum cultivation area of 200, 1000 or 3000 m² per license. Indoor aeroponic facilities with yields up to 10x higher offer a promising solution to that problem.

Comparing aeroponic, hydroponic, and soil cultivation methods

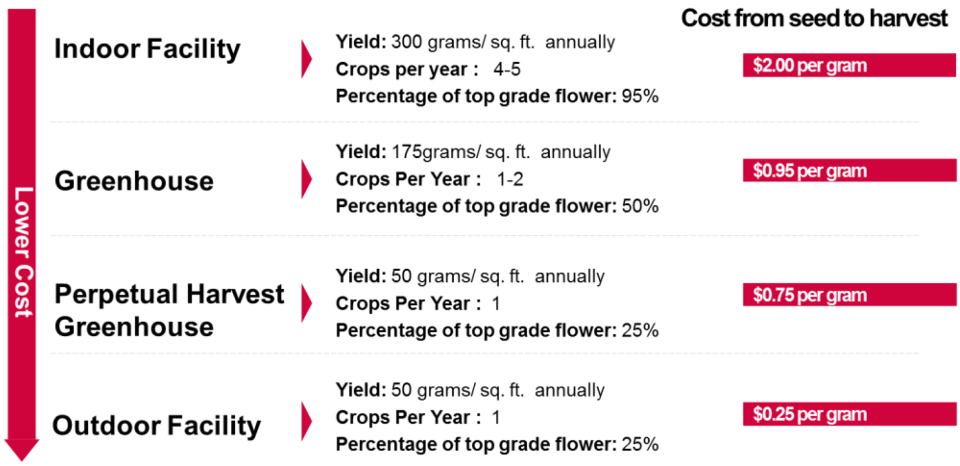
The characteristics of cannabis production

Cannabis production consists of eight stages. First, the farmer needs to choose which strain he will grow out of the selection of over a thousand different ones available. Once he has selected a strain, he can either plant seeds or decide to use cuttings from another plant. These mother plants are chosen for their genetic particularities based on previous harvests. The cuttings are grown for approximately two weeks until roots start to sprout. These new plants, having between four and eight leaves, are now moved to the cultivation rooms. Then it is time for the vegetative state.

The plants grow at a very fast pace as their stems strengthen and thicken and the plants develop new branches and leaves. After this period, the plants enter their reproduction cycle and start to bloom. Then comes harvest time. The plants' pistils and trichomes usually change color when they are ready to be harvested giving a clear visual indication to the farmers. Following the cutting of the plants, the manual or mechanical trimming commences, leaving the producers with only the flowers. These are dried and finally cured while resting in sealed plastic bags. This is also the time when their flavors fully develop and mature. The flowers are finally separated by size and sent to processing for extraction or distillation or to be sold on the retail market.

Even before differentiating between cannabis strains, it is important to understand that the cultivation method will foster different advantages and disadvantages as per the graph below:

Estimates for different growing methods



Source: CannTrust

Indoor facility growing allows for the highest yield, between 2.5 and 4.0 kilograms per m² annually, which is over five times the unimproved greenhouse yield and ten times the outdoor yield. Not only are the yields higher in an indoor facility mainly due to having multiple crops per year but also the percentage of top-grade flowers is significantly higher than with any other means of cultivation. These numbers can be further accentuated with the help of smart solutions for indoor facilities.

Indoor facilities' main advantages stem from their controlled environment. Producers can transform variables like daylight, temperature, humidity, airflow, and CO2 levels into constants and adapt them specifically to each strain grown. Companies that want to harvest identical buds every time must minimize variation in these variables in order to ensure maximum results. However, these advantages come at a price.

Example of the top grade flower from Agrios

Source: Agrios Global Holdings Ltd.

The production costs (including initial capex) per gram in an indoor facility are the highest of the three cultivation methods. Nevertheless, they also account for the highest yield, most top-grade flowers as well as highest THC concentration potential and, therefore, their product can achieve the highest selling price per gram.

Available cannabis products and consumer specifics

Nothing is more different from cannabis than cannabis. In order to illustrate this concept, a relevant parallel can be drawn with the wine industry.

When looking at wine, the first thing people differentiate is the type of vine. Some clients might prefer a Merlot to a Cabernet Sauvignon or a Riesling to a Pinot Gris. The same holds true with cannabis strains. Different strains will offer distinctive features, tastes and effects. However, not just the grape variety but also the region or the weather will impact the taste and quality of the wine. For cannabis, the strain genetics, the use of soil, pesticides, fertilizers, the weather and water have important impacts on the harvest result. This is exactly the competitive advantage of Agrios' data-driven Agri-solution: it allows cannabis producers to indefinitely recreate the taste of their best "vintage" by controlling all the necessary elements that comes to play.

However, opposite to wine, cannabis finds its way to the consumer in very different forms. Products sold in a dispensary can be divided into five different categories: concentrates, edible marijuana, flowers, pre-rolled marijuana, and vape pens. The most obvious trends during the last five years are:

- a major diminution of the flower market shares from 82% to 49%,
- an increase from 3% to 27% for pre-rolled marijuana,
- an increase from 2% to 15% for vape pens.

Surprisingly, the edible sector has seen an important diminution, representing less than 10% of the market. The concentrate sector has been stable, accounting for 15%.

Consumer specifics of the cannabis market

In the US, the cannabis consumer base is made up of four generations. The Millennials currently account for 50% of the market. The generation X and Baby Boomers make up almost 44%. The last 6% are divided between the Silent Generation and Gen Z. This number is now shifting since the legal age for cannabis consumption is 21 in the US and more Gen Z members are coming of age. Their share of the market tripled in the last year alone. This growth will accentuate with time and Gen Z should form an important part of the market in a few years.

Percentage of total sales across each product category by generation

Product	Millennials	Generation X	Baby Boomers	Silent Generation
Beverage	1%	1%	1%	1%
Capsules	1%	1%	2%	3%
Concentrates	14%	9%	6%	4%
Edible	8%	10%	12%	16%
Flower	45%	45%	48%	39%
Pre-Roll	9%	7%	6%	6%
Tincture & Sublingual	1%	3%	4%	9%
Tropical	1%	1%	2%	5%
Vape Pens	21%	23%	20%	17%

Source: mjbizmagazine

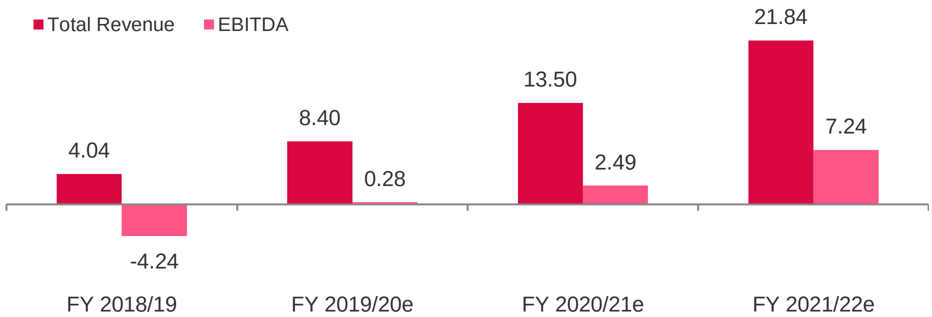
As mentioned earlier, vape pens and flowers are the most consumed products overall. However, it is interesting to focus on two major trends. The younger generations show a bigger interest in the cannabis flower. They also show a preference towards concentrate products. The edible products market is becoming marginal and pre-rolled marijuana is enjoying little more popularity. Currently, due to restrictions in the law, cannabis beverages are also still marginal, but this should change rapidly in the coming years as the cannabis beverage industry is bound to become a major pull for further investments in cannabis producers.

Company Performance And Forecast

	FY 2018/19	FY 2019/20e	FY 2020/21e	FY 2021/22e
Rental and other fees	2.54	4.80	6.00	13.20
Products and service fees	1.51	3.60	7.50	8.64
Total Revenue	**4.04**	**8.40**	**13.50**	**21.84**
COGS (Cost of Goods Sold)	-0.75	-2.10	-4.05	-6.55
Gross Profit	**3.30**	**6.30**	**9.45**	**15.29**
Accounting and Audit fees	-0.24	-0.29	-0.33	-0.38
Advertising and promotion	-0.26	-0.35	-0.44	-0.55
Asset acquisition expense	-0.99	0.00	0.00	0.00
Bank charges and interest	-0.19	-0.23	-0.26	-0.30
Consulting fees	-0.66	-0.79	-0.91	-1.05
Depreciation	-0.59	-0.71	-0.81	-1.38
Legal fees	-0.24	-0.29	-0.33	-0.38
Management salaries	-1.28	-1.53	-1.76	-2.03
Office and miscellaneous	-0.48	-0.58	-0.67	-0.77
Other salaries	-0.01	-0.05	-0.05	-0.06
Payroll taxes and benefits	-0.15	-0.27	-0.31	-0.36
Share-based payments	-2.56	-1.07	-1.23	-1.42
Travel and meals	-0.48	-0.58	-0.66	-0.76
EBIT	**-4.83**	**-0.43**	**1.68**	**5.86**
Interest revenue	0.06	0.03	0.03	0.03
EBT	**-4.77**	**-0.40**	**1.70**	**5.88**
Income tax expense	-0.12	-0.10	-0.17	-0.17
non-controlling interest	0.02	0.00	0.00	0.00
Net profit	**-4.87**	**-0.50**	**1.53**	**5.71**
Total Revenue	4.04	8.40	13.50	21.84
EBITDA	-4.24	0.28	2.49	7.24
EBITDA-Margin	*neg.*	*3.3%*	*18.5%*	*33.2%*
EBIT	-4.83	-0.43	1.68	5.86
EBIT-Margin	*neg.*	*neg.*	*12.4%*	*26.8%*
Net profit	-4.87	-0.50	1.53	5.71
Net-Margin	*neg.*	*neg.*	*11.3%*	*26.2%*

Source: GBC AG

Development of the revenue and the EBITDA



Source: GBC AG

Historical development of the company

P&L (in m $)	FY 2018/19
Sales	4.04
EBITDA	-4.24
EBITDA-Margin	*-104.8%*
EBIT	-4.83
EBIT-Margin	*-119.4%*
Net income	-4.87
EPS in $	-0.04

Sources: Agrios Global Holdings Ltd., GBC AG

The company had total revenues of USD 4.044 million for 2018/19, an important increase from the USD 2.539 million for the same period in 2017/18. The rise in revenues can be attributed to company's history as their facility was acquired beginning of 2017/18 and rented soon afterwards. The company didn't have a full year of revenues from their facility until 2018/19.

in m $	FY 2018/19
Equity	23.31
Equity ratio (in %)	71.7%
Operating assets	22.71
Working Capital	2.15
Net Debt	-3.18

Sources: Agrios Global Holdings Ltd., GBC AG

Agrios has currently a strong balance sheet with a high equity ratio, which could offer a good basis for sustainable growth.

Agrios is now finalizing its product development stage and entering its take-off phase, as they have completed the planning and majority of construction at their facility. With every harvest since July 2018, they have been able to design, test, evaluate, improve their proprietary cultivation solution. The company has now proven the economics of its business model and is focussing on new growth opportunities.

The company is strategically positioned as a market leader in data driven aeroponic cannabis cultivation. Most importantly, the barrier of entry for their competitors is increasing with each harvest completed using Agrios technology. As that their data-driven agrotechnology is mature and proven, the company is ready to tap into new sources of revenue. The company is exploring expansion possibilities both inside Washington State and outside.

The most probable expansion might be in Missouri where the company is already providing consultation services to third parties in obtaining their cannabis production license. We therefore believe that the location is a natural fit for the implementation of their next production facility. We expect the company to start the acquisition/construction of a new facility as early as 2020/21. Furthermore, we believe that the company has the necessary space at their Washington State facility (and access to additional spaces if required by law) and the potential clients to grow their services in Washington State.

With their latest hiring's, we also expect the company to roll out its own brand in 2019/20. Finally, the company could enter the fast-growing CBD sector. We believe that the company is well positioned to diversify its operations and sources of income as early as the end of this year.

SWOT-Analysis

Strengths	Weaknesses
• Experienced and highly qualified team in aeroponic cultivation, cannabis and branding • Technological leader in data-driven agrotechnology in the cannabis sector • Differentiated strategy. Quality and consistency over quantity. • Business model and solutions to tackle industry issues • Flexibility - Not limited to the cannabis industry • High barrier of entry for competitors	• Dependent on individual key people • Competitors currently produce at lower costs • Operating in a small margin sector • Dependent on a single facility • Additional facilities require Capex • No recognizable brand for end-user
Opportunities	**Threats**
• Expansion in new states • Development of distinctive branding • Entering higher margin operations • New product development in Asia • New states legalizing recreational and therapeutic cannabis	• Cannabis sector may not be moving in the direction of needing more consistency and reproducibility. • Cannabis production and consumption still illegal on a federal level • Constant change in the legislation • Cannabis overproduction in Washington State

Forecast

P&L (in m $)	FY 2018/19	FY 2019/20e	FY 2020/21e	FY 2021/22e
Sales	4.04	8.40	13.50	21.84
EBITDA	-4.24	0.28	2.49	7.24
EBITDA-Margin	*Neg.*	*3.3%*	*18.5%*	*33.2%*
EBIT	-4.83	-0.43	1.68	5.86
EBIT-Margin	*Neg.*	*Neg.*	*12.4%*	*26.8%*
Net income	-4.87	-0.50	1.53	5.71
EPS in $	-0.04	0.00	0.01	0.05

Source: GBC AG

Current corporate strategy – Duplicating their operations

Through the deployment of their data-driven technology, Agrios wants to enable producers to maximize their yield of premium quality end-product and consequently increase their margins. The company's revenues are dependent on the producers' success as higher production and margins results will lead Agrios' to grow their client base. Moreover, as the company is improving its technology, it is raising the confidence in the economics of their growing solutions services and equipment.

As previously discussed, one of the driving forces behind this business model is the legislation in their operating state. In Washington, as the production licenses are limited in surface area, maximizing production is a key driver to success. Also, the market being mature, major drops in prices of wholesale cannabis have occurred, forcing high-cost producers out of business. The array of technology, products and services that Agrios offers enables its customers to produce premium products, for sale at competitive prices.

In order to achieve their goals, Agrios Global Holdings has made some critical hires right from the star: Dr. Curtis Livesay, as their director of Agronomy services and Andrew Lange, as CTO. The company has also recently acquired the services of Jill Clapperton, a world-renowned scientist and ecologist who has collaborated with farmers and agriculture agencies throughout the world, developing custom programs to optimize plant productivity and soil health.

As per the company's business model, Agrios Global Holdings has been generating revenues since they started leasing their Washington State facility and providing agronomic consulting services. These sources of income have enabled Agrios to invest continuously in their technology and helped the producer reach improved cultivation results: from a yield of 348.6 g/m² for the first harvest to precisely 671.3g/m² last May. It also helped them achieve an 80% reduction in labor, 63% reduction in energy consumption and a 90% water consumption reduction. These lowered production costs will be a significant factor in attracting new producer clients as the company expands into other states.

As previously stated, the company is looking to diversify its income source. Their latest hires are directly pointing to their next expansion phase. The addition of Mr. Lanterman and Mr. Hammer enables Agrios to sell branding services to their existing clients as well as develop their own branding, which could lead to recognition from end-users and, in return, feed the demand for their products from the bottom up.

Agrios has also implemented the procedures and controls required to ensure minimal variance of the active molecules in the cannabis of their licensed producers, which is exactly what the pharmaceutical sector is looking for. The CEO, Mr. Kennedy, is actively managing the company not as an Agritech or a cannabis company but rather as a pharmaceutical one. His implementation of traceability, quality controls and duplication of results are a carbon copy of the best practices in the pharmaceutical sector. The addition of Dr. Jill Clapperton will unlock new possibilities for Agrios Global holdings in the cannabis genomics sector, isolation of active molecules and more specifically, compliance with pharmaceutical companies' norms and best practices.

As the company is acquiring complex and massive specific actionable data on a multitude of cannabis strains, it is widening its consultancy offer. This broad strain database will enable them to attract more licensed producers. Producers using their services will be able to constantly adapt to the market needs by maximizing production, quality and consistency of all the main cannabis strains in demand. A producer using Agrios services could change the cultivated strain within 73 days, constantly adapting to the rapid and diverse consumer trends, without any compromise on the end-product making such a producer, a highly suited partner for major companies.

We also believe that Agrios could attract a potential pharmaceutical partner for medical trials as Agrios can predict the exact concentration of the entire cannabinoids and active molecules in every strain for every harvest cycle. This consistency and reproducibility are the major key elements of successful medication. Moreover, the company's solution eliminating the need of fertilizer and pesticides also ensures that the end-products stay free of contaminants.

It is of the utmost importance for pharmaceutical companies to ensure a maximum similarity in active molecule content for their products. We believe that once the duplication of the molecule mix in a product can be achieved nationwide, and the law permitting interstate cannabis trade, the big pharmaceutical companies will jump on the cannabis train heavily. Agrios is clearly aiming at this opportunity and is dedicated to being leaders in this segment. Mr. Kennedy is clearly positioning Agrios for the long run.

Overview of key figures

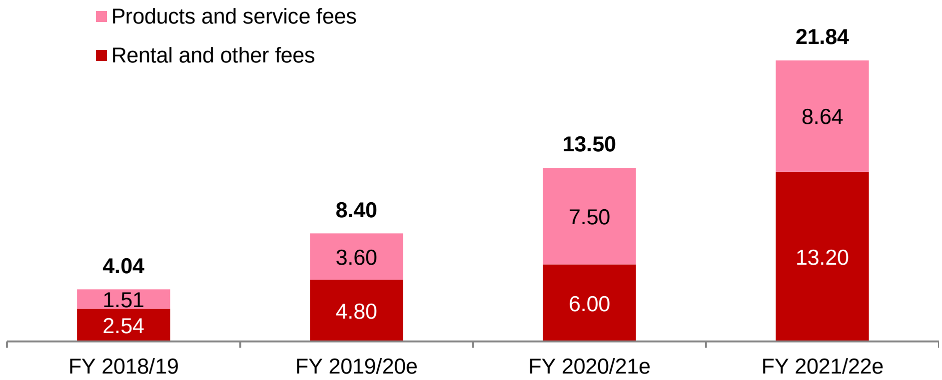
Agrios is a company in the take-off phase. Its major strategy is now to focus on growing their revenue streams. The Company has the potential to raise decisively their earnings in the next few years, through the acquisition of additional clients and the addition of new lines of revenue with little additional capital expenditure. The company bears a small long-term debt of USD 4.189 million on its Washington State facility and has a cash position of over USD 1.028 million. They have receivables of over USD 4.250 million as of March 31, 2019. The receivables reflect unpaid past rents from the producer. The rent was to be paid once the producer reached positive cash-flow. As the producer has entered this critical phase, we expect the receivables to lower within a year.

Revenues

The revenues are composed as follows: leasing/rental fees and services fee. The company's major income vector, **leasing fees**, should rise to USD 4.8 million in fiscal 2019/20 and reach USD 13.2 million by fiscal 2021/22. Improved cultivation results will lead to a rise in the premium that Agrios can charge their future clients, paving the way for this increase in revenues. Also, we believe that the company will have a second operational facility by year end 2021/2022.

We are projecting the company to acquire and develop a new cultivation facility in Missouri within the next two years under the same leasing and services contract conditions that they have in Washington. We predict that the company will be able to finance the costs through a combination of debt, equity and warrants exercised, minimizing the total dilution. This second facility will mark the beginning of another growth phase for Agrios by allowing them to develop a national brand. A second facility could enable them to work with pharmaceutical companies to test and conduct medication tryouts based on specific cannabis strains for patients suffering from adverse health conditions.

Revenue by fee structure

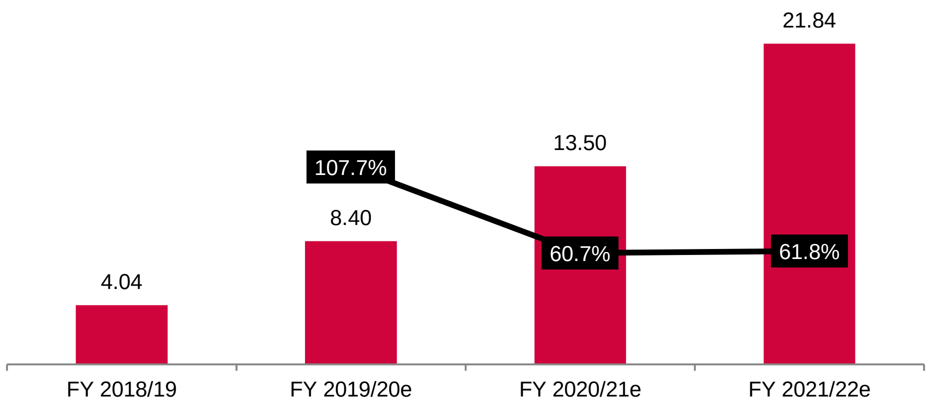


Source: GBC AG

The company's second vector of income, **products and services fees**, is also on the rise. We project this line of revenues to more than double each year until 2020/21. Product and services fees should rise from USD 1.507 million to USD 8.64 million in 2021/22.

To support this growth, we believe that the company could be adding a combination of processing capacities, branding and new service contracts as well as expending these services in a new State. As the cannabis market is still growing in Washington State, we believe that Agrios has plenty of space to gain more share of the service offering market. Additionally, these higher margin operations would not only have a positive impact on the revenues but also on the net profits.

Revenue forecast



Source: GBC AG

With the signings of Mr. Lanterman and Mr. Hammer, Agrios could be implementing their own brand through a licensed processor, generating additional demand for its technology and services from the recognition of premium product by the end user. Agrios would have to license those brands to a state-licensed processor to comply with the Washington State law. We believe that it would prove transformative for the company on the long term as branding in the cannabis sector is of the upmost importance. Since we believe that Agrios' brand will act as a seal of quality and reproductivity that is unique in the market, the company will benefit economically from such recognition. Finally, the increase in revenues should be met with a lower expense ratio, unlocking higher margins.

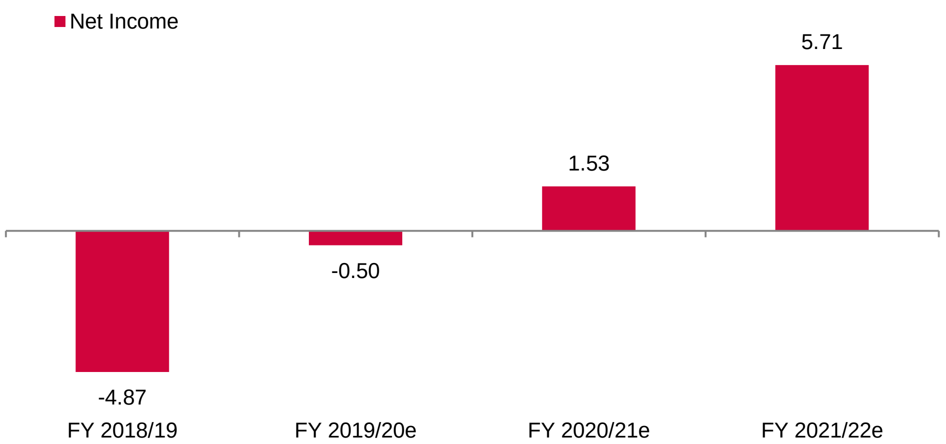
The company's business model is very lean on personnel and costs. Moreover, the next phase of expansion should be covered without significant additional debt. With the company's ability to duplicate its installation with minimum additional personal costs, we believe that every added facility (owned by Agrios or not) would have a major positive impact on Agrios' balance sheet.

Altogether, we project the company's total revenues to grow from USD 4.04 million in fiscal 2018/19 to USD 21.84 million in fiscal 2021/22, representing a 75.44% CAGR, while limiting our assumptions to the addition of only one facility. This important rise in the company's revenues should translate into a healthy financial situation with the company reaching the break-even point for 2020/21. Were the company to acquire and rent more facilities, or sigh a research partnership with a pharmaceutical company, we would expect their revenues and margins to grow even more rapidly.

Earnings

Overall, we are expecting the company to post a slight loss of USD 0.50 million in FY 2019/20 and gains of USD 1.53 million in 2020/21 with a second facility fully financed built and in operation. The company should report significant positive earnings of USD 5.71 million in FY 2021/22 representing a very healthy net margin of 26.14%.

Earning forecast



Source: GBC AG

VALUATION

Model assumptions

We rated Agrios Global Holdings Ltd. using a three-stage DCF model. Starting with the concrete estimations for 2019/20, 2020/21, and 2021/22 in phase 1, in the second phase, from 2022/23 to 2026/27, our forecast uses value drivers.

Here we expect a sales increase of 25.0 %. We have assumed an EBITDA margin target of 35.0%. We have taken into account average tax rates of 12.0 %. Additionally, a residual value is determined in the third phase by using the perpetual annuity by the end of the forecast horizon. As the final value, we assume a growth rate of 2.0%.

Determination of capital costs

The weighted average cost of capital (WACC) of Agrios Global Holdings Ltd. is calculated using equity costs and debt costs. The market premium, the company-specific beta, as well as the risk-free interest rate have to be determined in order to determine the equity cost.

The risk-free interest rate is derived in accordance with the recommendations of the expert committee for company valuations and business administration (FAUB) of the IDW (Institut der Wirtschaftsprüfer in Deutschland e.V.) from the current interest rate yield curves for risk-free bonds. The zero bond interest rates according to the Svensson method published by the German Federal Bank form the underlying basis. To smooth out short-term market fluctuations, we use the average yields over the previous three months and round up the result to 0.25 basis points.

The value of the currently used risk-free interest rate is 1.00%.

We set **the historical market premium of 5.50%** as a reasonable expectation of the market premium. This is supported by historical analyses of stock market returns. The market premium reflects the percentage by which the stock market is expected to be more profitable than low-risk government bonds.

According to GBC estimates, we have determined a beta of 1.93.

Based on these assumptions, the calculated equity costs amount to 11.6% (beta multiplied by the risk premium plus the risk-free interest rate). Since we assume a sustainable weighting of the equity costs of 95 % (target ratio), the resulting weighted average costs of capital (WACC) amount to 11.2%.

Evaluation result

The discounting of future cash flows is based on the entity approach. In our calculation, the result for the corresponding weighted average costs of capital (WACC) is 11.2%. The resulting fair value per share at the end of the 2020/21 financial year corresponds to the target price of 1.38 CAD (1.04 USD; 0.94 €). This target price is valid until 31/03/2021 or until a previous change or update of the valuation model.

US Dollar to CAD Conversion: 1 USD = 1.3201 CAD (01 Aug, 18:20 UTC)
US Dollar to Euro Conversion: 1 USD = 0.9039 EUR (01 Aug, 18:20 UTC)

DCF-Modell

Agrios Global Holdings Ltd. - Discounted Cashflow (DCF) model

Value driver of the DCF model after the estimate phase:

consistency - phase	
Sales growth rate	25.0%
EBITDA-Margin	35.0%
Depreciation to fixed assets	3.0%
Working Capital to Sales ratio	25.0%

final - phase	
Eternal growth rate	2.0%
Eternal EBITDA-Margin	32.7%
Eternal effective tax rate	12.0%

Three phases - Model:

Phase	**estimate**			**consistency**					**final**
in m USD	FY 20e	FY 21e	FY 22e	FY 23e	FY 24e	FY 25e	FY 26e	FY 27e	Terminal value
Sales	8.40	13.50	21.84	27.30	34.13	42.66	53.32	66.65	
Sales changes	107.7%	60.7%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	2.0%
Sales to fixed assets	0.37	0.31	0.49	0.59	0.71	0.86	1.05	1.27	
EBITDA	0.28	2.49	7.24	9.56	11.94	14.93	18.66	23.33	
EBITDA-Margin	3.3%	18.5%	33.2%	35.0%	35.0%	35.0%	35.0%	35.0%	
EBITA	-0.43	1.68	5.86	8.21	10.55	13.49	17.18	21.80	
EBITA-Margin	-5.1%	12.4%	26.8%	30.1%	30.9%	31.6%	32.2%	32.7%	32.7%
Taxes on EBITA	0.05	-0.20	-0.70	-0.98	-1.27	-1.62	-2.06	-2.62	
Taxes to EBITA	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
EBI (NOPLAT)	-0.38	1.48	5.15	7.22	9.28	11.87	15.12	19.18	
Return on capital	-1.5%	5.7%	10.6%	14.3%	17.4%	21.0%	25.1%	29.8%	28.3%
Working Capital (WC)	3.00	4.50	1.00	6.83	8.53	10.66	13.33	16.66	
WC to Sales	35.7%	33.3%	25.2%	25.0%	25.0%	25.0%	25.0%	25.0%	
Investment in WC	-0.85	-1.50	-1.00	-1.33	-1.71	-2.13	-2.67	-3.33	
Operating fixed assets (OAV)	23.00	44.00	45.00	46.50	48.00	49.50	51.00	52.50	
Depreciation on OAV	-0.71	-0.81	-1.38	-1.35	-1.40	-1.44	-1.49	-1.53	
Depreciation to OAV	3.1%	1.9%	3.1%	3.0%	3.0%	3.0%	3.0%	3.0%	
Investment in OAV	-1.00	-21.81	-2.38	-2.85	-2.90	-2.94	-2.99	-3.03	
Capital employed	26.00	48.50	50.50	53.33	56.53	60.16	64.33	69.16	
EBITDA	0.28	2.49	7.24	9.56	11.94	14.93	18.66	23.33	
Taxes on EBITA	0.05	-0.20	-0.70	-0.98	-1.27	-1.62	-2.06	-2.62	
Total investment	-1.85	-23.31	-3.38	-4.18	-4.60	-5.07	-5.65	-6.36	
Investment in OAV	-1.00	-21.81	-2.38	-2.85	-2.90	-2.94	-2.99	-3.03	
Investment in WC	-0.85	-1.50	-1.00	-1.33	-1.71	-2.13	-2.67	-3.33	
Investment in Goodwill	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
other effects	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Free cash flows	-1.52	-21.02	3.15	4.40	6.08	8.24	10.95	14.35	197.33

Value operating business (due date)	102.03	134.50
Net present value explicit free cash flows	8.26	30.21
Net present value of terminal value	93.77	104.28
Net debt	-1.68	19.31
Value of equity	103.72	115.18
Minority interests	0.00	0.00
Value of share capital	103.72	115.18
Outstanding shares in m (fully diluted)	110.48	110.48
Fair value per share in USD	0.94	**1.04**
Fair value per share in CAD	1.24	**1.38**
Fair value per share in EUR	0.85	**0.94**

Cost of Capital:

Risk free rate	1.0%
Market risk premium	5.5%
Beta	1.93
Cost of Equity	11.6%
Target weight	95.0%
Cost of Debt	5.0%
Target weight	5.0%
Taxshield	25.0%
WACC	**11.2%**

		WACC in CAD				
		10.2%	**10.7%**	**11.2%**	**11.7%**	**12.2%**
Return on capital	**27.3%**	1.55	1.43	1.33	1.24	1.15
	27.8%	1.58	1.46	1.35	1.26	1.18
	28.3%	1.61	1.48	**1.38**	1.28	1.20
	28.8%	1.63	1.51	1.40	1.30	1.22
	29.3%	1.66	1.54	1.42	1.32	1.24

		WACC in USD				
		10.2%	**10.7%**	**11.2%**	**11.7%**	**12.2%**
Return on capital	**27.3%**	1.17	1.09	1.01	0.94	0.87
	27.8%	1.20	1.10	1.02	0.95	0.89
	28.3%	1.22	1.12	**1.04**	0.97	0.91
	28.8%	1.24	1.14	1.06	0.99	0.92
	29.3%	1.26	1.16	1.08	1.00	0.94

ANNEX

I.
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BUY	The expected return, based on the derived target price, incl. dividend payments within the rel 10%.
HOLD	The expected return, based on the derived target price, incl. dividend payments within the rel 10% and < + 10%.
SELL	The expected return, based on the calculated target price, incl. dividend payments within the <= - 10%.

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