

# WHITEPAPER

## Tackling the challenges of the modern market Biofuels & Agiblocks

# Tackling the challenges of the modern market – Biofuels & Agiblocks

Agiboo is probably best known for its prowess in the world of sugar, cocoa and coffee. Indeed, Agiblocks started out as a focused industry CTRM for those very commodities. Since the early days however, we've expanded our scope to support anything from grain to cotton, nuts and (edible) oils – as our flagship software solution has become a bit of an allrounder over the years, equally suited to support all agricultural or soft commodities. In fact, Agiblocks – now in its 4.0 version – is equipped to support any business in taking on the 5 top risks in commodity trading – and that includes the everyday challenges in the market for biofuels too!

Sure, many of the more traditional commodities Agiblocks excels in are related to biofuels. Think palm and other edible oils, or the fact that grain is a much-used ingredient in the creation of biofuel. But in this article, we'd like to focus on biofuels as a commodity in its own right. It may be a relatively small segment of the commodities marketplace, but there are very clear signals for growth over the next few years. Signals that are so strong that it may very well be time to start looking at the market for biofuels more seriously.

In fact, companies in the commodity industry that are not interested – currently or at all – to have a piece of the pie are still expected to deal with the increasingly important role of the fuel derived from living matter when it comes to shipping their product.



# The market for biofuels

Sticking to signals and forecasts, the numbers are quite impressive. According to Mordor Intelligence, the biofuels market size is expected to grow from 1.8 million barrels of oil equivalent per day in 2023 to 2.32 million barrels of oil equivalent per day within the next five years, at a CAGR of 5.2 percent during that forecast period.

The pandemic has adversely affected due to a fall in demand for fuels as transportation was halted, the industry report goes on to state, which in turn has affected the demand for biofuels, as they are often mixed with fossil fuels.

The market has reached pre-pandemic levels, while a long-term demand for secure, clean energy coupled with new government mandates for sustainability is expected to propel demand for biofuels all over the world. The Energy Transition is driving the global emergence of biofuels, and the consumption of fuels like Ethanol, Biodiesel, and Sustainable Aviation Fuel (SAF) is growing rapidly. In the US especially, rapid increase in demand as well as production facilities will likely further stimulate market growth.





# Biofuels industry

We've thrown in 'fuel derived from living matter' a few paragraphs earlier, but let's take a proper look at biofuels as a product and as an industry. Biofuel is a fuel that is produced from biomass, over a short time span rather than by the very slow natural processes involved in the formation of fossil fuels. It can be produced from plants or from agricultural, domestic or industrial biowaste. In other words, it derives from living things or their waste.

Most biofuels are used in the same way as the more traditional fossil counterpart; as a transportation fuel, in industrial applications or for generating heating and electricity. It is flammable or combustible, while the manufacturing process can involve potentially dangerous chemical reactions. In contrast to fossil fuels however, biofuels are considered a renewable source of energy due to its replenishable nature.

To quote Mordor Intelligence once more, the biofuels industry is segmented by type, feedstock, and geography. By type, the market is segmented into biodiesel, ethanol, and other types. By feedstock, the market is segmented into palm oil, jatropha, sugar crop, coarse grain and other feedstock. Generally speaking, first generation biofuels are derived from food crops, such as sugar cane, corn and vegetable oils; second generation biofuels come from cellulosic material like parts of plants and wood grasses; third generation are derived from algae, as other applications besides sources of nutrients and chemicals for animal feed and aquaculture or colorings and flavorings include biofuels and bioenergy.





# Challenges in the market

One of the biggest challenges associated with CTRM for soft commodities is the complex supply chain involved in their production and distribution. Unlike more traditional commodities like oil or metals, soft commodities are typically grown and processed in a variety of different locations around the world. This can create a number of logistical challenges when it comes to tracking inventory, managing transportation and storage costs, and ensuring compliance with regulatory requirements.

In addition, soft commodities often have unique quality characteristics that can impact their value. For example, the flavor and aroma of coffee or cocoa can be impacted by the specific growing conditions and processing methods used. This means that the quality of the final product can vary depending on a number of different factors, making it more difficult to accurately value and manage the associated risk.

For biofuels, there are numerous different blends, which makes managing the supply chain complex and challenging from the start. These challenges can be anything from the procurement of the necessary raw materials (such as edible oils and fatty acids) and distribution – the logistics of getting the final product to end clients, including all regulatory requirements, verifications and exemptions – to the financial stakes in long and short biofuel physicals. A priority in terms of company oversight and compliance might very well be getting a complete picture of the physical and financial situation of the business process, in real-time, as well as an evaluation of current performance.

Commodity trading is subject to stringent regulations and reporting requirements. In the market for biofuels, that's no different. Complying with regulations in the biofuels industry can be challenging as the rules are constantly changing. It is important to ensure sustainability for all parties involved in this industry. The supply chain for biofuels faces several challenges such as logistics, procurement, and audits, which require specialized commodity management technology. Failing to comply with these obligations can result in severe penalties and reputational damage.

# CTRM to the rescue

Commodity Trading and Risk Management (CTRM) software has been a game-changer for businesses dealing with commodities. It is no longer confined to large corporations; small businesses can equally benefit from this powerful tool. Any CTRM solution worth its salt can be a catalyst for growth and success for small businesses, including businesses in biofuels – from optimizing manual tasks and other daily processes to automating regulatory reports.

## **Agiboo Knowledge Center**

*Did you know one of our partners is the leading European consultancy in biofuels trading solutions? Quatro Solutions, who have been helping us to streamline implementation of Agiblocks and tackle the queues for our CTRM software solution, have extended their experience in physical biofuels trading, encompassing the usual complexities of waterborne and storage activities with sustainability certificates management in multiple jurisdictions – so we know where to go with any queries!*

Despite all the challenges associated with CTRM for soft commodities, there are a number of tools and strategies that can be used to effectively manage risk. These can include the use of advanced analytics and machine learning algorithms to predict market trends, as well as the implementation of rigorous supply chain management processes to ensure that inventory is tracked and managed effectively.

When considering a CTRM, it's important to look for certain features such as logistics and storage management, blending capabilities for biofuels (such as Bio Diesel), inventory management, pricing, logistics, cost management, and P&L analysis.

It's also crucial to consider the risks and impact of price volatility, imbalances, and management of operational and market-related risks, along with effective hedging strategies to mitigate price volatility. Additionally, transparency and connection between the front, middle, and back offices should be a top priority.

A robust CTRM system simplifies compliance management by offering built-in features that ensure adherence to regulatory standards. From automating trade documentation and reporting to providing audit trails and compliance monitoring tools, a CTRM system helps you navigate the complexities of compliance efficiently and accurately. This not only saves time and resources but also safeguards your business from potential legal and financial risks.



# Decision-making

Somewhere at the start of this article, we've addressed the fact that many of the more traditional commodities Agiblocks excels in are related to biofuels, one of them being palm oil. Here, we have another example of how the complex supply chain involved in the production and distribution of commodities can be one of the bigger challenges for a software solution tasked with keeping oversight.

Palm oil is a main component in the creation of biofuels. Similar to other vegetable oils, the demand for biofuels is growing rapidly. The challenge for manufacturers here is to find a balance between the biofuels and food production. Both industries are demanding larger quantities which the producers cannot meet. This results in discussion about which industry to prioritize. That poses valid questions in the daily operations of manufacturers. Questions that can be addressed in real-time when relying on a CTRM like Agiblocks.

Data is the lifeblood of effective decision-making in commodity trading. A CTRM system acts as a data hub, consolidating and analyzing vast amounts of information. By harnessing powerful analytics tools, you can gain valuable insights into supply and demand dynamics, market trends, and trading patterns. Armed with this knowledge, you can make data-driven decisions that maximize trading opportunities and optimize profitability. Whether it's identifying potential arbitrage opportunities or optimizing pricing strategies, a CTRM system equips you with the tools to stay ahead of the competition – whatever the challenge.





# Adapting with Agiboo

Our brand symbol, the hare, epitomizes agility, often considered nature's swiftest and most nimble creature. While it might raise eyebrows when talking technology, think of Agiblocks' functionality akin to that of a race car – both championing speed, control, and efficiency.

It's not just about winning a single race; it's about sustained excellence. In both the racing and CTRM spheres, the real challenge lies in maintaining agility and ensuring consistent performance in a dynamic, constantly changing environment. This agility lets you enhance the primary version with new features, whether it's tweaking a car's suspension or enhancing a software application. Balancing innovation with maintaining the integrity of the foundational architecture often poses challenges. Yet, it's this commitment to excellence, driven by persistence and investment, that we pride ourselves on.

At Agiboo, we've stayed true to our initial promise of leveraging the latest technologies while staying agile – a promise our users reap benefits from every day. Especially as we've now come full circle by introducing Agiblocks 4.0, which is how we've always envisioned the full potential of our flagship CTRM software solution.

**Would you like to know more?**

## REQUEST A **LIVE DEMO** IF YOU ARE:

01

A trader in soft  
and/or agricultural  
commodities

02

A buyer or importer  
of soft and/or  
agricultural  
commodities (for  
instance: a  
producer  
purchasing raw  
materials)

03

A seller of soft  
and/or agricultural  
commodities

*.. or if you are simply interested in our next-generation CTRM solution*

**Request Demo**



## About Agiboo

The commodity trade and risk management software Agiblocks incorporates detailed understanding of the specific business and information technology requirements to successfully deploy commodity trading and risk management. Agiblocks is positioned as a 'next generation' CTRM solution for commodity purchasers and traders.

Agiboo has its roots in the commodity trade and is one of the organizations driving commodity knowledge through the industry. People at Agiboo have their background in or did projects in a variety of commodity trading organizations. Products of Agiboo BV have been deployed in more than 20 commodity industry companies, where additional services have been delivered to more than 30 commodity industry organizations.

Senior staff at Agiboo has been exposed to senior management roles in trade, procurement, finance and information management. For its development and delivery processes Agiboo employs senior staff with each individually well over 20 years of experience in software development and delivery. Besides inhouse consultants and developers Agiboo has long standing relations with external software development and implementation consulting companies.

Agiblocks has been developed in one of the latest available software architectures, cloud services based and is designed to be accessible through any browser on any computer or tablet. Due to its design and its technology it offers a unique and intuitive user experience and is very scalable in its implementation. Together this facilitates easy implementations and a low total cost of ownership. Agiblocks can be deployed on a single server on site or made available in the cloud and is offered on perpetual license or on subscription basis. These alternatives make Agiblocks an attractive alternative for any CTRM need in almost any situation. Let's talk solutions.