

Advanced Biofuels Summit 2021

13th - 14th April 2021 VIRTUAL

"Creating commercial opportunities for advanced biofuels globally through technological advancements, regulation, collaboration, research and innovation"

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Why Attend?



Fuelled by the demand for sustainable clean fuels, coupled with a favourable regulatory climate, increased government initiatives for eco-friendly alternative fuels, and with global energy consumption projected to increase 28% by 2040, the global biofuel market is expected to see significant growth over the next few years. Major blending mandates that drive the global demand for biofuels have been set in the US, China, and Brazil. These countries have a target of achieving 15-27% blend of biofuels with conventional fuel by 2020-2022, which is expected to drive global demand in their respective regions. Ethanol and Biodiesel remain the most popular fuels, however increasingly advanced liquid biofuels produced from feedstock such as lignocellulosic, waste oil, fats, and municipal waste count as a viable option to decarbonize energy sectors in a cost-effective way in industries such as aviation, shipping, and freight. However, limited feedstock availability, keeping up with advancements in process technology, and growing regulatory pressures across Europe, China, Brazil, and the US means that the global biofuels markets still have some significant challenges to overcome.



- Multi-stream conference
- Networking opportunities across 4 continents

The inaugural Advanced Biofuels Virtual Summit 2021 will position itself as the leading premier event for the global advanced biofuels sector. With its interactive format of panel discussions, presentations, open discussion allowing for engaging Q&A, and structured business networking opportunities. The summit brings together key players, and senior representatives from bio diesel producers, downstream oil companies, clean fuel producers, biodiesel, renewable diesel and alternative fuels industries, process technology providers, fuel traders, brokers, consultants, crop science and feedstock suppliers to discuss the latest market trends, the impact of Covid – 19 on the global biofuels market, advancements in process technology, review existing regulation impacting the markets in Asia Pacific, Europe, North & South America , and ascertain where the most commercial developments & business opportunities lie globally.

Who Will You Meet:

- Head of biofuels
- O Business Development Officer
- Market Development Manager
- O Director of Technology
- O Carbon Strategy Director
- Head of clean fuels
- Global Sales Director
- Technical Manager

- Senior Policy Advisor
- Senior Commodity Analyst
- Senior Grains & Oilseeds Markets Analyst
- Ø Biofuels Director
- Global Commercial Director
- O Technical Service Manager
- Ø Biofuels Analyst
- Fuels Trader

- O Downstream Oil Companies
- Independent Biofuels Producers
- Regulators
- Technology Processing Companies (FPT)
- O Governments & Government funded organisations
- O Crop Science and Feedstock Suppliers
- O Catalyst companies
- Energy Consultants

Agenda Focus on Asia Pacific

Time Zone SST (Singapore Standard Time) UTC (Coordinated Universal Time)



13:50 SST

Opening Message: To be added once we confirm a chair

The Biofuels industry may still be in its relatively early stages in Asia Pacific; however, there is enormous potential for its development which has seen companies such as NESTE investing \$1.4 billion in 2019 on a bio refinery in Singapore. Successive governments across the region have shown their encouragement for the industry by introducing a favourable regulatory climate. India and China are currently leading the pack with regards to investments in production, research, and innovation. One of the leading market drivers is the need to reduce its dependence on oil and energy exports. Currently, ethanol is the most widely produced biofuel across the region, as fuel producers can easily manufacture fuel from sugarcane waste that is abundantly available in the country. The tailored programme will address issues with regards to regulator, feedstock availability, and production capacity, with specific case studies from the region.

14:00 SST

Panel Discussion: Key Developments and Trends in the Asian Biofuels Market

The main drivers for promoting biofuels in the Asia Pacific region are the desire to reduce reliance on imported oil and climate change mitigation. This has resulted in investment into the market of the production and development of biofuels.

- Integrated Regional Plan for Biofuel Development in Asia
- China's Advanced Low Carbon Fuels Supply Overview HVO, Cellulosic Ethanol
- Bioethanol in Asia: Key Developments, Trends and Trade Flows

15:00 SST

Session: A Review of Regional Biofuels Policies and Their Implications on the Asian Market

Policy directions and incentives for biofuels continue to strengthen across the region and there are increasingly positive indications from government and private developers. The biggest mover of the last few months has been Japan. Despite some initial regulatory uncertainty following the election of a new conservative government, and mixed messages about Japan's nuclear future, several large-scale plans have been announced by both domestic and foreign investors.

Legislations and Policies on Liquid Biofuel Development

· Renewable Energy Policies and Regulatory Framework in Southeast Asian countries

16:00 SST

Session: Biofuel Feedstocks Supply in Asia Pacific

Despite the efforts of Asian countries for biofuel development for nearly a decade, the growth in the feed- stock sector lags other countries such as US and Brazil. This is due to several factors, but specifically the decreasing availability of agricultural land. The major established capacity in the feedstock sector continue to use food crops, while the future expansion of biofuels production in Asia will depend on food and non-food feedstocks such as sugar cane, cassava, palm oil and jatropha.

Case Study of China's First Hemp Biogas Plant
Feedstock Focus: Supply and Sourcing, Production, and Emerging Alternatives

17:00 SST

Session: Advanced Biofuels Technology Updates & Emerging Opportunities

Whether constructing greenfield biodiesel projects, incrementally expanding existing capacity, retrofitting idled and underperforming facilities, or integrating biodiesel processing with ethanol plants, new and emerging biodiesel production technologies are ready to fit the bill. This session will feature promising alternative approaches to biodiesel manufacturing designed to optimize production through improving efficiencies and yield while reducing capital and operational costs, while providing expert guidance on how to evaluate new technologies

- · Developing cost-competitive advanced technologies to convert wastes into fuels
- Improving Existing Biodiesel Technologies to Optimise Production

18:00 SST

Case Study: Liquid Biofuels for Transportation - A deeper look into the opportunities in the Chinese biofuels market

18:45 SST Closing Remarks & Thanks

Agenda Focus on North America

Time Zone CDT (Central Daylight Time) UTC (Coordinated Universal Time)



08:50 CDT Welcome Message

The North American Biofuels sector is expected to reach \$75095 million by 2026. The availability of low cost and abundant raw materials like soybeans and favourable government tax credits for biofuels such as RNG (renewable natural gas) and ethanol continue to drive market demand. The United States and Canada continue to be the major players in the North American market. With the US having some of the world's leading biotechnology industry, allows for them to produce biobased products on an economic and commercial scale. According to U.S Department of Agriculture, biofuels are replacing the conventional petroleum-based fuels in this region. Canada is also another lucrative market for biofuel production as various government initiatives are leading to the increased adoption of biofuels in areas like transportation and electricity. This tailored programme with dive into the recent regulatory updates impacting the North American biofuels industry in recent light of the American government is process technology, feedstock availability, and production capacity, with specific case studies from the region.

09:00 CDT

Panel Discussion: Key Developments and Trends in the North American Biofuels Market

As the global economy continues to reel from a year of upheaval, the North American biofuels sector has not escaped untouched. With the goal of driving down greenhouse gas emissions, you will find powerhouse states like California, New York continue to push for cleaner energy alternatives. What vast opportunities exist for biodiesel and renewable diesel in this low carbon transformation?

• What will the biofuels sector in North America look like post Covid-19?

• Meeting production targets for 2021 – will advanced biofuels producers be able to reach production target of 2 billion litres per year mandated by the EPA? Speakers: Harrison Clay, Renewable Fuels, Biogas & Biomethane Project Development & Environmental Commodities, BP

10:00 CDT

Case Study

California's Low Carbon Fuel Standard (LCFS) has already put the state on the path to true carbon reduction in their transportation fuels. Just how realistic is an All-EV rollout – ever? And what role can we expect biomass-based diesel to play now and for decades to come? This case study will look at how Crimson Renewable Energy LP, which heads up the Crimson Renewable Biodiesel Project supported by the Clean Transportation Program California has impacted their production capacity.

18:00 SST

Session: Reviewing Regulatory Developments

EPA delayed issuing the 2021 RFS (Renewable Fuel Standard) proposed rule until past the November election, creating uncertainty for biodiesel producers. With the election behind us, what issues have arisen with the rule?

- How will the revision of the Renewable Fuels Standard regulation shape the industry from 2022 and beyond?
- What are the prospects for a national low-carbon fuel standard to supplement or replace the Renewable Fuel Standard?

12:00 CDT

Panel Discussion: Meeting Demand for Alternative Feedstocks

Soybean oil has a long history as a vital feedstock for biofuels and more recently for renewable diesel. As state carbon policies drive huge opportunities for these fuels, could the expanding markets change the value dynamics of a bushel of soybeans? Our expert panel will discuss this important symbiotic relationship and explore the possibility that the value of soybean oil plays a more important role in the future for oilseed processors. What opportunities exist for soybean production technology companies to respond to this enhanced oil value?

- · The Future Role of Soybean Oil in the Biomass-based Biofuels Market
- Ensuring Sustainable Production Through Holistic Utilisation of Feedstock

13:00 CDT 30 Minute Virtual Coffee Break & Networking

13:30 CDT

Session: Reviewing Commercial Opportunities in the Developing of Cellulosic and Algae based Hydrocarbon Biofuels

The U.S. biofuels industry has also witnessed considerable progress of the non-food-based hydrocarbon biofuels, which are drop-in replacements for gasoline, diesel, and jet fuel. Drop-in hydrocarbon biofuels are chemically like petroleum-based fuels and therefore are fully compatible with existing infrastructure, for example there is no need for engine modifications and drop-in biofuels may use existing petroleum distribution systems. Over the last few years, several companies are currently or proposing to use second generation (lignocellulsoic) and third generation (algal) feedstock to produce various end products, however, most have yet to achieve full production scale up. • Algae Biofuels: Recent Advances and Future Prospects

Feedstock Costs and Availability

· How to Attract Long Term Investment for R&D and Commercial Scale Up

14:30 CDT

Session: Latest Conversion Technology for Optimal Production

Many operating biofuel plants can improve their output and performance. Sometimes all it takes is a third-party review of process designs, the trained eye of process technology providers with decades of experience, or maybe an alternative catalyst or a simple yet effective upgrade. Hear from the experts about a variety of ways biofuel manufacturers can optimise their existing production assets.

Alternative Approaches & New Technology Integration

Looking into Flexible, Cost-Effective, Scalable Technology to Maximise Production Output and Streamline Operations

Agenda Focus on North America

Time Zone CDT (Central Daylight Time) UTC (Coordinated Universal Time)



15:00 CDT

Session: Sustainable Aviation & Marine Fuel

Through self-governance by airlines, incentive programs on the US west coast, and growing credit offset programs in North America, sustainable aviation fuel is quickly becoming a highly sought-after commodity worldwide.

- The Role of Advanced Biofuels to Meet ZERO Net Emissions Targets
- Reviewing Current Market Drives and Future Commercial Opportunities
- Green Shipping with Advanced Biofuels

16:00 CDT

Presentation: New Advances in Waste-to-Fuels

- Revieing the latest waste-to-energy technologies available
- Recent Developments in Sustainable Biomass

17:00 CDT

Session: Evaluating Commercial Opportunities for Biodiesel

Biodiesel is the second-most consumed biofuel in the United States behind ethanol. The lack of significant blending restraints and the presence of incentives for producing and blending biodiesel have helped support biodiesel demand so far in 2020. Biodiesel consumption meets the Renewable Fuel Standard and receives a relatively favourable Carbon Intensity score within the Low-Carbon Fuel Standard (LCFS) in California. Nationally, the U.S. produces nearly three billion gallons of biodiesel annually. Made from an increasingly diverse mix of resources such as recycled cooking oil, soybean oil and animal fats, biodiesel is a renewable, clean-burning diesel replacement that can be used in existing diesel engines without modification. It is the nation's first domestically produced, commercially available advanced biofuel.

- Cost Effective Technologies for Biodiesel Production
- Biodiesel as Transportation fuel; Reviewing Market opportunities
- Biodiesel Production on an Industrial level and Scale Up

18:00 CDT

Session: Driving Decarbonization with Ethanol

The U.S. Ethanol market is estimated to reach \$38.69 billion by 2023. Rapid urbanisation and a growing automobile industry are expected to drive market demand. This demand is reflected by a growing trend in ethanol fuel stations, the emergence of Direct-Ethanol Fuel Cell, rising application of ethanol in octane industry and innovation in ethanol production. However, the industry still faces some challenges in the form of declining corn production, stringent regulations, intense competition and rising demand for hybrid electric vehicle (HEV).

- The Future of Automobiles: How Does Ethanol Fit In?
- Reviewing LCFS (Low Carbon Fuel Standard) and RFS (Renewable Fuel Standard) Policies: Complementary or Conflicting?
- Producing Bio alcohols from Algae
- Advanced Technologies for Bioethanol Production

19:00 CDT Closing Remarks & Thanks

Agenda Focus on South America

Time Zone SPST (Sao Paulo Standard Time) UTC (Coordinated Universal Time)



08:50 SPST

Welcome Message

The South American Biofuels market is currently witnessing strong growth and continues to be one of the most advanced markets with Brazil being the world's second biggest producer of fuel ethanol (6921 million gallons in 2019 from sugar cane) and the world's biggest exporter of fuel ethanol. Moreover Argentina, Colombia, Costa Rica and Mexico are not far behind. Due to rising environmental concerns and the growing focus on energy conservation, governments of several countries in Latin America are supporting the utilisation of biofuels. This, in confluence with the increasing awareness about the benefits of biofuels, represents one of the major factors bolstering the market growth in the region. In addition to this, the thriving automotive industry is acting as another factor impelling the market growth. Furthermore, the escalating energy demand is expanding the applications of biodiesel in power generation and residential and commercial heating. The emergence of third-generation biofuels market growth in the coming years. The tailored programme will address issues with regards to regulation, feedstock availability, and production capacity, with specific case studies from the region.

09:00 SPST

Panel Discussion: Key Developments and Trends in the South American Biofuels Market

- Oil and fuel price outlook: Opportunities and challenges for Biofuel Production
- Development and projected future of bioethanol in Argentina
- Industry development of sugarcane ethanol in South America
- Ethanol market in Costa Rica: possibilities and contradictions

10:00 SPST

Session: Assessing Investment Opportunities for Advanced Biofuels

Brazil is one of the world's leading biofuel markets, producing nearly 40 billion litters of biofuels in 2019. Brazil's biodiesel industry has expanded in recent years because of increases in mandated blend levels for diesel fuel. The introduction of the RenovaBio program to expand ethanol production, accompanied by further increases in the biodiesel blending mandate, is expected to lead to even higher biofuel consumption in the next decade.

- Financing Sources for Biofuels and Feedstock Investment
- Opportunities and Risks for continued Biofuel Expansion in South America
- · Brazil's Biofuel Policy Framework; Creating A Favourable Climate for Continued Growth & Development

11:00 SPST

Session: Exploring Commercial Opportunities for Advanced Biofuels in Road Transportation

Transport biofuel production expanded 6% year-on-year in 2019, and 3% annual production growth is expected over the next five years. This falls short of the sustained 10% output growth per year needed until 2030 to align with the SDS. Stronger policy support and innovation to reduce costs are required to scale up both advanced biofuel consumption and the adoption of biofuels in aviation and marine transport, as envisaged in the SDS. As only sustainable biofuels have a place in the SDS (Sustainable Development Scenario), more widespread sustainability governance must complement higher biofuel output.

Creating Pathway to Commercialization

• Exploring the Cutting Edge of Advanced Transportation Technology

12:00 SPST

Session: Feedstocks: Pricing Dynamics Implications for the South American Biofuels Industry

While biofuel feedstocks are expanding through large industrial-scale plantations and smallholder

production alike, the expansion of industrial-scale production systems has been countered by a critical response by civil society actors concerned about the implications for rural livelihoods, customary land rights, and the environmental effects of biofuel feedstock cultivation. In this respect, more and more biofuel producers in the region will need to actively consider to diversifying to sustainable feedstocks for biofuel production from non-agricultural sources.

- Reviewing Advanced Biofuels as a New Business Segment in Traditional Forest Industry
- The Social and Environmental Impacts of Biofuel Feedstock Cultivation

12:45 SPST -

Case Study: Ethanol Plants for Latin America: Technology, Economics, Sustainability An in-depth look into Commercial Scale Up Opportunities in the Brazilian Sugarcane Ethanol and Colombian Palm Oil Plants

30 Minute Virtual Coffee Break & Networking

13:15 SPST

Case Study: Peru: Ethanol Production, Trade Dynamics, and Future Commercial Prospects

Peru is expected to produce and consume more ethanol in 2020 than it did in 2019. "Peruvian ethanol production in 2019 is forecast at 180 million litters, an increase of 29 percent from the previous year. The increase in production, has been reported is due to one of the country's two production facilities restarting operations after ceasing production in 2014. Thus, creating some exciting commercial opportunities for investment.

13:30 SPST

Session: Outlook on Technology Development & Sustainability for Advanced Biofuels in South America

Advanced biofuels conversion pathways are at different stages of technological maturity. Opportunities for innovation exist across the entire value chain. Significant improvements to all advanced biofuels pathways will come from process integration of technology. Innovative technologies drive improvements in performance and cuts production costs, thus eliminating the gab in cost between advanced biofuel conversion and today's first-generation biofuels.

- Using Technology to Supporting Advanced Liquid Biofuels Commercialisation
- In Fast Pyrolysis and Pyrolysis Oil Upgrading to Produce Diesel

Agenda Focus on South America

Time Zone SPST (Sao Paulo Standard Time) UTC (Coordinated Universal Time)



14:30 SPST - 17:30 UTC

Session: Commercial Scale Up Opportunities for Renewable Aviation Biofuels The South American Aviation Market for biofuels witnessed significant growth over the last several years, resulting in the Federal Aviation Administration (FAA) predicting that Latin America will be the fastest growing region for commercial air transport over the over the over the next two decades. Brazil now boasts the world's fourth largest domestic aviation market. Aviation alone causes nearly 3% of global carbon emissions, a share that is likely to grow. Against this background, further development of sustainable, renewable biofuel options is essential. However, the lack of infrastructure to support such aircraft presents potential obstacles to growth of the market.

15:30 SPST - 18:30 UTC

Presentation: ED95 Ethanol as a Clean Biofuel for Heavy-Duty Engines

ED95 is a fuel grade containing up to 95% ethanol that can be used in certain heavy-duty vehicles. It can deliver the energy efficiency of a diesel engine while reducing emissions of CO, NOx and CO2 over the full fuel lifecycle compared to fossil diesel.

16:15 SPST - 19:15 UTC **Closing Remarks & Thanks**

Agenda Focus on European Biofuels

Time Zone CEST (Central European Time) UTC (Coordinated Universal Time)



08:50 CEST

Welcome Message

The European Biofuels market is currently heavily regulation driven. By far one of the most mature markets globally, the region in recent years has seen an increase in more robust, stringent regulation such as the Renewable Energy Directive (RED) to encourage the production and subsequent consumption of biofuels across Europe. With the RED II, the EU also introduced sustainability criteria for biomass and expanded sustainability criteria for liquid biofuels. The RED I will enter into force on January 1, 2021. The EC is now preparing implementing and delegated acts, most of which will need to be adopted before the enforcement of the Directive. The region is also grappling with the limited availability of feedstocks. Traditional (crop-based) feedstocks are being capped and/or phased out in Europe, and instead more advanced feedstocks will need to be used. However, at current levels of technology those advanced feedstocks are quite limited in supply as well. The tailored agenda will review the viability of alternative feedstocks, and address how best companies can prepare for the rollout of these regulation and their respective impact on their production capacities.

09:00 CEST

Panel Discussion: Strategic Outlook for European Advanced Biofuels Market

- · In depth analysis into the current production status and future development for advanced biofuels
- in Europe
- European strategy towards GHG (Green House Gases) circulation methods for 2021 2030: A
 detailed look into double counting and waste raw material listings
- The role of biofuels as a long-term sustainable alternative to meet low emission objectives
- Speakers: Andrea Martelli, Head of Biofuels Trading, Portfolio Optimization & Supply, Eni

10:00 CEST

Session: European Regulatory Framework – What to expect in 2021?

- Assessing the progress of REDII (Renewable Energy Directive) within member states: meeting European targets post 2021 and beyond
- Creating a legal framework for co-processing
- Analysing future developments of key policies impacting the biofuels supply chain
- · Impact of the EU Renewable Energy Directive (REDII) on biofuels demand: a choice of quality over quantity

10:30 CEST - 09:30 UTC

Session: New Alternatives Feedstocks for Advanced Biofuels

- Potential new feedstocks where do the opportunities lie?
- Sourcing sustainable and cost-effective feedstocks for advanced biofuels
- Feedstock availability considering REDII
- · Low carbon feedstocks requirement; looking into HVOs and biomass

11:30 CEST

Session: Commercial Opportunities for Conversion Technologies

- Making the most of processing and blending advancements; evaluating the most efficient technologies to meet European transport decarbonisation requirements
- · Reviewing the best conversion technologies for production scale up
- New renewable diesel production technology
- Effect of changing base pools and feedstock limits on FAME, HVO, ethanol and biomethane markets

Speakers: Enzo De Biase, International Development and Licensing, Licensing Expert Green Chemistry ENI

12:30 CEST

Session: Future of Advanced Biofuels for Transportation in Europe • The Fast Rise of Sustainable Marine Biofuels Speakers: Dirk Kronemeijer, Founder & CEO, GoodFuels Cornelius Claeys, Renewable Energy in Transport - EU Analyst, Stratas Advisors

13:15 CEST 30 Minute Virtual Coffee Break & Networking

13:45 CEST

Panel Discussion: How achievable is meeting the net zero target currently? Europe has a challenge ahead of it. It first needs to restore the devastating effects of the pandemic, and then accelerate its response to climate change using the levers of the EU Green Deal. In the meantime, how will GHG based mandates change the use of biofuels in Europe; which products will be favoured and what will be the impact of double counting?

14:15 CEST

Presentation: Getting to grips with the palm oil issue as the industry begins to regain its' focus, it is time to review the industry's dependence on palm oil, how will the EU replace palm oil by 2030, what if palm oil can be sourced through sustainable farming, and what is the outlook for oilseed imports to EU

15:15 CEST

Presentation: Analysis of the European ethanol market: reviewing the impact of COVID-19 on prices and margins have recovered from recent lows but challenges persist as feedstock prices are high. Governments remain committed to targets, but low oil prices limit the economic incentive to blend.

15:45 CEST

Presentation: Assessing the feedstock outlook for ethanol because of ILUC directive, crop-based feedstocks will be capped at 2020 levels. How much advanced ethanol will be available? Challenges for European based feedstocks in a world of GHG savings mandates. Will this incentive higher imports into Europe?

16:30 CEST Closing Remarks & Thanks

Organised by

More Details Contact Sarah Ajawin Conference Producer Phone: +44 203 608 0826 Email: sarah@wisdom.events

Delivery: Biofuel Summit will be delivered Virtually through an advanced networking tool.