

# 2<sup>nd</sup> International Congress and Expo on Biofuels & Bioenergy

## Theme: Accelerating Advancements in the Field of Biofuels & Bioenergy

The demand for biofuels is growing enormously. From the evidence available today, we believe that biofuels could, with developments in technology and favorable policy constitute up to 30% of the world transport fuel mix by 2030. The advantages of biofuels – whether in greenhouse gas benefits, energy security or rural development – mean that many governments are keen to foster the industry through current phases of technology development to deliver material scale and reduced costs. The world is in a state of biofuels fever. In 2006 biofuel constituted 49 billion litres, or 3%, of the 1,600 billion litre market for gasoline and diesel fuel. By 2015 the biofuels market is likely to have tripled to 155 billion litres. In practical terms that is an increase of around 10 billion litres per year over ten years. In terms of current ethanol yields of 5,250 ltrs / ha, this equates to an increase of land use for biofuels of approximately 17,000 square km per year. The bulk of the global demand for ethanol and biodiesel comes from a few major regions. The USA accounted for very nearly 50% of global ethanol consumption in 2006, with Brazil taking 36% of global volumes. The EU accounted for 75% of global biodiesel consumption in 2006. The reason why we believe the feverish rate of growth is likely to materialize is because, with no carbon beneficial substitutes available in the near term, biofuels are being promoted by governments. Clear examples of this are the trends of regulations in the EU, and the intentions announced in the US. BP is already a major player in the global biofuels market. In 2006 BP blended 3,016 million litres of ethanol into gasoline – a 25% increase on the previous year. Thus BP is already well exposed to the biofuels fever – and the theme of this paper is to suggest how the industry can tap the heat of the fever in a positive sense.

Brazil has been particularly chosen to host this conference as the Brazilian biodiesel industry is making rapid strides towards increased production. It is already the seventh largest producer of biodiesel in Europe and there are more than 28 biodiesel production plants in pipeline. This is primarily due to the Brazilian Renewable Energy Program (REP), 2005, which kick-started the production of biodiesel. The current regime of full tax exemption for a limited volume of biodiesel is the key incentive system for biodiesel in Brazil. Brazilian biodiesel output will increase to 3.1 million metric tons this year from 2.56 million tons in 2013, with soybean oil the main feedstock, the Hamburg-based researcher wrote in an e-mailed report.

Brazil's government has mandated biodiesel account for 6 percent of diesel fuel as of July, rising to 7 percent in November, according to Oil World. South American soybean oil prices rose in the past four weeks, reflecting demand from the biodiesel industry in Brazil and Argentina, the researcher said.

## Importance & Scope:

Increasing energy demand, climate change and carbon dioxide (CO<sub>2</sub>) emission from fossil fuels make it a high priority to search for low carbon energy resources. Biofuels have been increasingly explored as a possible alternative source of fuel and represent a key target for the future energy market that can play an important role in maintaining energy security. It is primarily considered as potentially cheap, low-carbon energy source.

Biofuels-2015 is the event designed for the International professionals to facilitate the dissemination and application of research findings related to Biofuels and Bioenergy as replacement fuels. It is a scientific platform to meet fellow key decision makers all-around the Biotech organizations, Academic Institutions, Industries, & Environment Related Institutes etc., and making the congress a perfect platform to share and gain the knowledge in the field of bioenergy and biofuels.

Biofuels -2015 is a platform to gather visionaries through the research talks and presentations and put forward many thought provoking strategies of production and scale up of renewable Energy and making the congress a perfect platform to share proficiency.

## Why Sao Paulo?

Boeing and Embraer have opened a joint sustainable aviation biofuel research center in a collaborative effort to further establish the aviation biofuel industry in Brazil. Sao Paulo is a metropolis and global city located in south eastern Brazil. It is the most populous city in Brazil, in the Americas, in the Western and Southern hemisphere, and the world's thirteenth largest city by population. The metropolis is anchor to the São Paulo metropolitan area, ranked as the most populous metropolitan area in Brazil, the second in the Americas and the seventh in the world. São Paulo is the capital of the state of São Paulo, Brazil's most populous and wealthiest state. The name of the city honors Saint Paul of Tarsus. According to a report from 2011, São Paulo was expected to have the third highest economic growth in the world between 2011 and 2025, after London and Mexico City. São Paulo is considered the "financial capital of Brazil". Brazil is a country with nearly 8.5 million Km<sup>2</sup> and with huge contrasts regarding its demographic distribution and social indicators. Such a contrast is exemplified by the human development index (HDI): Brazil has one of the biggest economies in the world, according to its GDP. Brazil's HDI ranked 79th among the countries studied by UNDP. Based on World Bank criteria (World Bank, 2007), Brazil is a lower middle income group. Having the largest economy by GDP in Latin America and Southern Hemisphere, the city is home to the São Paulo Stock Exchange. Paulista Avenue is the economic core of São Paulo. The city has significant cultural, economic and political influence both nationally and internationally. São Paulo is the 10th richest city in the world, and is expected to be the 6th richest in 2025. According to data of Fecomercio/SP, its gross domestic product (GDP) in 2011 was \$ 450 billion. It is home to several important monuments, parks and museums such as the Latin American Memorial, the Ibirapuera Park, Museum of Ipiranga, São Paulo Museum of Art, and the Museum of the Portuguese Language. The city holds high profile events, like the São Paulo Art Biennial, the Brazilian Grand Prix, São Paulo Fashion Week and the ATP Brasil Open. It is also the headquarters of the Brazilian television networks Record, Band and Gazeta.

## Conference Highlights:

Bioalcohols

Food V/S Fuel

Aviation Biofuels

Biogas

Algae Biofuel

Bio refineries

Biodiesel

Biomass

# Why to attend???

Meet highly qualified and experienced Scientists from around the world researching on Biofuels & Bioenergy, this is your single best opportunity to reach the largest assemblage of participants from all over the world. Conduct demonstrations, distribute knowledge meet with highly qualified scientists, discuss new researches, and receive name recognition at this 3-day event . World-renowned speakers, the most recent techniques, tactics, and the newest updates in Biofuels and Bioenergy are hallmarks of this conference.

Be Part of it!

This conference focusing on all the major aspects in the fields of Biofuels & Bioenergy

It would be beneficial for all the students who ever willing to enter into corporate as well as research fields targeting to the respective field.

Chance to form alliance with emerging or established companies/ Research institutes in the respective field.

## Target Audience

Core field Researchers/ Professors

Directors/Co-Directors of research based companies across Europe and US who are investing in Biofuels and Bioenergy

Economists

Aviation and Automobile companies.

Young researchers and local students.

Attendees of previous/past related conferences

Industry 40 %

Researchers 10%

Academia 30 %

Students 10 %

Others 10%

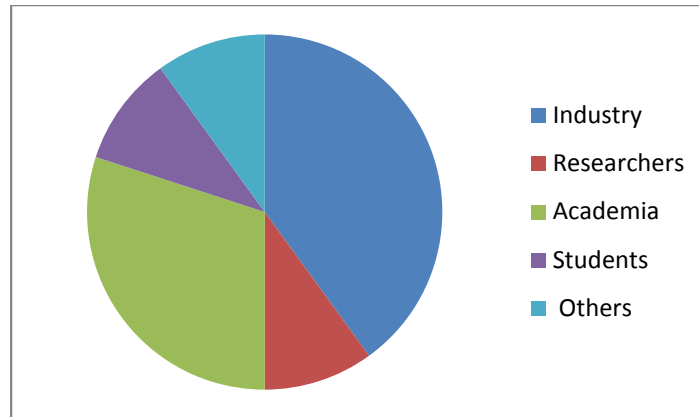


Fig 1: Target Audience

## Market analysis of Biofuels

The demand for biofuels is growing enormously. From the evidence available today, we believe that biofuels could, with developments in technology and favourable policy constitute up to 30% of the world transport fuel mix by 2030. The advantages of biofuels – whether in greenhouse gas benefits, energy security or rural development-mean that many governments are keen to foster the industry through current phases of technology development to deliver material scale and reduced costs. Our belief is that the industry can be developed sustainably, provided appropriate feedstocks are grown, which do not adversely compete with food, using good land management to minimise environmental impact. This will require development of appropriate sustainability standards; it will not be easy, but by engaging in the industry, responsible businesses will work out appropriate business models and want to see enforcement of standards across the industry. This paper sets out the characteristics of the global fuels market, the significance of joint industry studies with car manufacturers and the choices around land use that society must make. The approach taken by BP is then described whereby guiding principles have been defined to set the boundaries of our impact on ecosystems.

### Characteristics of the biofuels market: its size and growth rate

The world is in a state of biofuels fever. In 2006 biofuel constituted 49 billion litres, Or 3%, of the 1,600 billion litre market for gasoline and diesel fuel. By 2015 the biofuels market is likely to have tripled to 155 billion litres. In practical terms that is an increase of around 10 billion litres per year over ten years. In terms of current ethanol yields of 5,250ltrs / ha, this equates to an increase of land use for biofuels of approximately 17,000 square km per year. The bulk of the global demand for ethanol and biodiesel comes from a few major regions. The USA accounted for very nearly 50% of global ethanol consumption in 2006, with Brazil taking 36% of global volumes. The EU accounted for 75% of global biodiesel consumption in 2006. The reason why we believe the feverish rate of growth is likely to materialize is because, with no carbon beneficial substitutes available in the near term, biofuels are being promoted by governments. Clear examples of this are the trends of regulations in the EU, and the intentions announced in the US. BP is already a major player in the global biofuels market. In 2006 BP blended 3,016 million litres of ethanol into gasoline – a 25% increase on the previous year. Thus BP is already well exposed to the biofuels fever – and the theme of this paper is to suggest how the industry can tap the heat of the fever in a positive sense

# Strategies for developing the biofuels market

The current phase of development of biofuels is driven by governments which have recognized the triple challenges of climate change, energy security and rural development. The significance of this phase, compared to the rapid phase of development of ethanol in Brazil in the 1970s, is that the issues are now global. Incentives or mandates for biofuels are being developed across the world from Europe to New Zealand, as well as in China, Southern Africa and Indonesia for instance. Different players in the biofuels industry are likely to have many strategies. We can imagine two fundamental strategic options: “watch and wait” which reacts to the mandates for biofuels; or “drive the market” where investments are made to enable taking a better competitive position in a growing industry. BP has not adopted the “watch and wait” strategy; instead we want to ensure our business meets the changing needs of our customers and stakeholders – be they motorists at the pump or government partners with whom we work to develop oil businesses. The demand for biofuels is not just a desire of policy makers, but is reflected in surveys of the general public – the consumer. Of the Europeans surveyed, 47% say they would be prepared to pay more for a vehicle that ran on biofuels, and 41% would be prepared to pay a little more for biofuels. BP’s strategy has involved the formation of a dedicated business unit to pursue opportunities across the value chain from accessing feedstock, through conversion to trading and marketing.

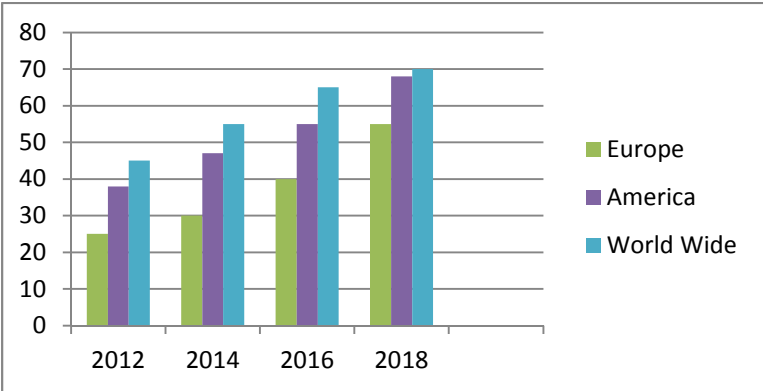


Fig 2: Biofuels Production and Research

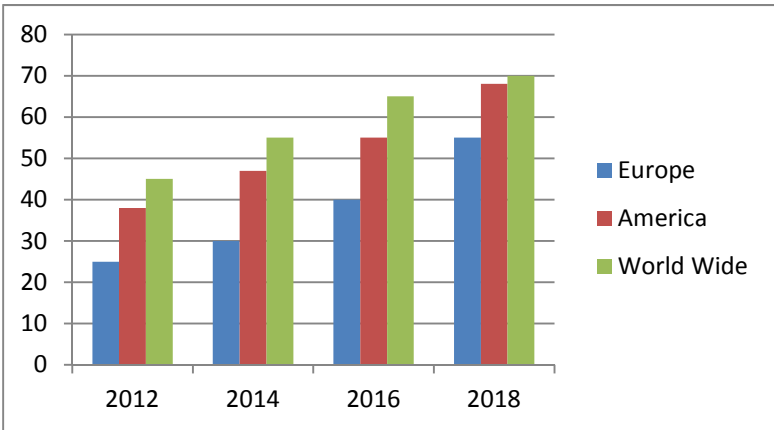


Fig 3: Demand of Biofuels

As the only direct substitute for fossil fuels, biofuels continue to grow in importance, despite a significant slowdown in investment. International trade remains active, with dynamic growth from the major exporting countries. However, current production technologies will very soon come up against the limits of resource availability, raising important questions regarding the ability to meet incorporation targets for 2021, especially in Europe and the USA. Current markets are therefore expected to maintain their current levels whilst waiting for the emergence of new biofuel technologies from 2015 onwards. The USA has been the world's leading producer and consumer of biofuels since 2007. Then come South America and Europe, with slightly lower consumption levels, but with a strong predominance of biodiesel in Europe and ethanol in Brazil. After a significant slowdown in growth between 2008 and 2009, consumption of biofuels worldwide returned to growth in Although the European Union shows relatively stable consumption of biodiesel, South America has seen its consumption double, whilst that of the USA has fallen by nearly 50%. Ethanol consumption is growing at 20% in Europe and North America, whilst the situation remains stable or possibly declines slightly in South America.

## KEY GLOBAL PLAYERS

Abengoa Bioenergy Corporation

Algenol Biofuels

Archer Daniels Midland Company

Associated British Foods Plc

Aurora Algae, Inc.

Australian Renewable Fuels Limited

Blue Sky Biofuels

Blue Sugars Corporation

Bluefire Renewables, Inc.

British Petroleum Company Plc

Bunge Limited

Cargill, Inc

China Clean Energy Inc.

Clariant International Ltd

Cosan S.A.

Coskata, Inc.

ETH Bioenergia S.A.

Green Star Products, Inc.

Greenfield Ethanol Inc

Hero BX

InfinitaRenovables SA

LS9, Inc

Mission Newenergy Limited

Neste Oil OYJ

Novozymes A/S

Perstorp Holding AB

POET, LLC

Royal Dutch Shell

Sekab

Sirona Fuels, Inc.

## **Key Associations of Biofuels around the globe:**

Advanced Biofuels Association

Renewable Fuels Association

Biofuels Association of Australia

Russian Biofuels Association

European Biodiesel Board

European Biomass Industry Association

Aebiom - European Biomass Association