Governments, international agencies affirm need to massively increase bioenergy and bioproducts to fight climate change

São Paulo, October 25. *According to projections of international energy agencies, the use of bioenergy as a share of the world's energy usage needs to more than double by 2030 if the world is to avoid temperature rises above 2º C. "We have simply no choice. We have to massively scale up bioenergy, and do it fast", says Paolo Frankl, Head of the Renewable Energy Division at the International Energy Agency (IEA). "Sustainable bioenergy is an indispensable component of the necessary portfolio of low-carbon technologies in ALL climate-change mitigation scenarios", said Frankl, based on the findings of a key upcoming report on the matter. "And there is a major, major*

gap between what we need and what is happening today in terms of the speed of deployment and the scale of investments in bioenergy".

The declarations were made as part of the Biofuture Summit, the first major conference of the Biofuture Platform, a coalition of twenty country governments, industry and the research community launched in November 2016 during UNFCCC COP23 in Marrakesh, aimed at the development of a modern, sustainable, low-carbon bioeconomy. The two-day Summit was held in São Paulo, Brazil, October 24 and 25, with more than 270 delegates from 28 countries coming together to discuss the best ways to face a relevant challenge for the future of humanity: creating a large-scale, sustainable, low-carbon bioeconomy. It was held in partnership with below50, a corporate coalition supported by the World Business Council for Sustainable Development (WBCSD) aiming to promote low carbon fuels.

Government policy-makers from Brazil, Canada, Finland, India, Italy, UK, the USA, and others openly debated their respective current and future polices and programmes for bioenergy and the bioeconomy, including California's LCFS, Brazil's upcoming RenovaBio, Canada's Clean Fuel Standard, the US's 1 Billion Ton Bioeconomy Vision and more. The bioeconomy, as defined by the Biofuture participants, is the use of biomass using technology to produce energy, materials and chemicals, as a sustainable, low carbon alternative to fossil based energy and products.

For their part, industry members highlighted key advances in conversion technologies and agricultural revolutions, such as the high-density energy-cane, waste and biomethane usage, cellulosic conversion, and many others. "Technology risk is no longer the main challenge as it was a few years ago, but access to capital resources", says Bernardo Gradin, CEO of GranBio, a company responsible for one of five first-in-class, commercial scale second generation ethanol plants in the world.

"Human psicology tends to oversimplify things in dicotomies like 'food versus fuel' or 'eletric vehicles versus biofuels', while any serious analysis taking in consideration the trends, projections, and use cases will expose those dicotomies as false", says Aloysio Nunes Ferreira, Brazil's Minister for Foreign Affairs, hosting the summit. "It's proven that we need electric vehicles, and at the same time a quick deployment of biofuels in the existing vehicle fleet and infrastructure if the world is to meet its climate goals. It's also proven that with the right combination of policies, technology and regulation, we can produce more food AND more energy, all the while reducing deforestation", said Mr Nunes.

"Renewable bioenergy solutions to transport are key: as inputs to power for electric vehicles, as biofuels for light vehicles as EVs phase in, and as biofuels for aviation, marine and freight in the long term", agreed Sakari Oksanen, Deputy Director General of the International Renewable Energy Agency (IRENA).

Having little land to spare and many people to feed, India is betting high on second-generation technologies and the use of residues to scale up its bioeconomy using rice and maize straw and other feedstocks, said Y.B. Ramakrishna, Chairman of the Working Group on BioFuels of India's Ministry of Petroleum & Natural Gas. "The goal in India is to quickly achieve 10% bio-ethanol blending in petrol and 5% bio-diesel blending in diesel by 2022. Indian oil companies are to to set up twelve second generation plants across 11 states of the country."

There was a clear, emerging consensus among the many views expressed by the 47 speakers and the public of policy makers around a few key messages:

a) bioenergy needs to be urgently scaled up, along with an expanded bioeconomy for advanced bioproducts and biomaterials, in order to fight climate change;

b) there is ample feedstock potential to be sustainably tapped through smart agricultural practices, intensification of livestock, 2nd generation and other advanced biofuels; high-density energy crops, and using rural and urban waste;

c) besides the climate advantages, the bioeconomy offers huge opportunities for job creation, sustainable development, technological innovation, agriculture intensification and energy security;

d) Bold, smart policies and stable frameworks will be needed to level the playing field and overcome the huge challenges facing the sector, including lack of investments, policy uncertainty, low oil prices, lack of capital for early stage technologies, fossil fuel subsidies and lack the of a comprehensive sustainability framework.

The Summit's deliberations fed into the Biofuture Vision Statement, a document to be officially endorsed by Ministers and high-level representatives of the 20 Member Countries of the Biofuture Platform in November 16, at the 23rd Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC COP23), which takes place from 6 to 17 November in Bonn,

in Germany. Among the purposes of the Vision Statement is helping elevate the sustainable low carbon bioeconomy in the global agenda as an urgent solution to combat climate change, and providing a strong signal to markets and investors about the large expected role for the sector in the next decades.

"The Biofuture Platform is a key part of a much needed effort to put back bioenergy in the global agenda", said Rasmus Valanko, Climate and Energy Director of the World Business Council for Sustainable Development (WBCSD). "It is a mechanism where governments, private sector and academia are able to very dynamically cooperate".

Launched by initiative of the government of Brazil, which now serves as its interim Secretariat, the Biofuture Platform has as its Member States Argentina, Brazil, Canada, China, Denmark, Egypt, Finland, France, India, Indonesia, Italy, Morocco, Mozambique, Paraguay, the Philippines, Sweden, the United Kingdom, the United States and Uruguay. The Platform aims to facilitate political dialogue and collaboration among leading countries, organizations, academia and the private sector, aware of the need to accelerate development and expand the deployment of sustainable low carbon alternatives solutions to fossil fuels in transport, chemicals, plastics and other sectors. The government of Brazil, through its Ministry of Foreign Affairs, currently acts as facilitator of the initiative.

INFORMATION FOR THE MEDIA

Biofuture Summit 2017 - October 24 and 25 (OPENING SESSION 24/10, 8:30 AM)

LOCATION: Estanplaza International Hotel, R. Fernandes Moreira, 1293 - Chácara Santo Antônio, São Paulo - SP.

DATE: October 24th and 25th, 2017

FULL PROGRAMME, SPEAKER PHOTOS AND BIOS, PHOTOS FROM THE EVENT, STATEMENTS AND PRESENTATIONS DELIVERED: http://www.biofuturesummit.com

MORE ABOUT THE BIOFUTURE PLATFORM: www.biofutureplatform.org

MORE ABOUT below50: www.below50.org

PRESS CONTACT: facilitator@biofutureplatform.org

ADDITIONAL QUOTES:

We need to see renewable energy taking an even bigger part of our energy mix in a quicker and quicker timeframe.

Biofuels are going to have to be a very important part of that to drive the entire economy forward and to provide reliable, affordable, clean energy for all

***Rachel Kyte**, Special Representative of the UN Secretary General for Sustainable Energy for All*

You can't look into the future without a portolio of technologies in which bioenergy will lead along with other renewable energies. Bioenergy has to grow rapidly, especially in transport, responsible for almost a quarter of man-made GHG emissions.

I point out the case of the aviation sector, for which there is no other available solution outside of low carbon biofuels

Paul Simons, Deputy Executive Director, IEA

"Climate objectives call for lower carbon fuel mix - Canada has a strong interest in transitioning to a lower carbon economy which will undoubtedly have implications for the broader bioeconomy (e.g. biochemical, bioproducts)"

"Canada needs to seize the opportunity of biomass advantage and technology advantage - Innovation will be play a key role in Canada's prosperity and how we use our renewable resources most sustainably"

Paula Vieira, Director Transportation and Alternative Fuels Division, Canada.

"Biomass is a very promising substitute of many fossil-based products."

"Multiple use of biomass calls for new types of business ecosystems, where the material and energy flow are utilised by several actors – utilising everything including waste and sidestreams on a win-win-basis".

Markku Järvenpää, Senior Vice President, international affairs, National Resources Institute (LUKE), Finland

"National Energy Policy is being proposed in India to bring in an ecosystem to support R&D in Energy sector, promoting new technology development for alternate fuels, deployment with involvement of line Ministries, engagement with private sector for both investment and technology development and commercialization."

***Sangita Kasture**, Joint Director, Ministry of Science and Technology, India*

"Bioenergy represents a major type of renewable energy. As such, it is key to supporting the UN Sustainable Development Goals (SDGs) in the context of climate change and energy security."

"As summarized by the IPCC 5th Assessment Report, integrated assessment modelling indicates a high risk of failing to meet long-term climate targets without bioenergy. Global assessments by REN 21, IEA and IRENA find that bioenergy accounts for half of the most cost-effective options for doubling renewable energy use by 2030. "

"Biofuels are moreover the only current practical alternative to fossil fuels for aviation, marine shipping and heavy freight transport. The attitude towards biomass production for food, bioenergy and other purposes should evolve from single end-use orientation to integrated production systems that ensure high resource use efficiency and reward sustainable production and use.

Jeffrey Skeer, Senior Programme Officer, IRENA

I leave Brazil now with a sense of being on the cusp of a biorevolution, supported by macroeconomics, global trends and the key stakeholders we will need. The Biofuture Platform will be key to realising the opportunity.

Rasmus Valanko, *Director of Climate & Energy, WBCSD*

The sobering message: Massive scale-up is needed for advanced biofuels. The role of markets will be key, but in the near & medium term, policy and regulation will likely dictate the pace.

Sustainability will remain key. Global supply chains need global sustainability assurance.

Christian Zinglersen, Head of the Clean Energy Ministerial Secretariat (CEM)

Bioenergy in final energy consumption needs to double by 2030, and biofuels in transport triple. Advanced biofuels will need a massive scale up

A step-change is needed in support policies for advanced biofuels, in order industry to demonstrate economies of scale and deliver necessary cost reductions towards competitiveness

The Biofuture Platform can play a key role in profile raising and stimulating policy access.

Paolo Frankl, Head of Renewable Energy Division, IEA

In principle there is enough sustainable biomass available to fulfil the demand for food, feed, transport, chemicals and materials. However, this requires: supply of sustainable biomass, efficient and circular use of biomass in biorefineries, use an integral sustainability assessment framework, innovation.

Kees Kwant, IEA Bioenergy Chair

Even with aggressive reductions in travel growth, shifts to mass transport modes, strong efficiency improvements, and deep market penetration by vehicles running on electricity and hydrogen, there remains a large demand for dense liquid fuels in 2050 (80% of transportation fuel) and even in 2075 (50%).

Plinio Nastari, Member of Brazil´s National Council on Energy Policy (CNPE)