



**THIRD INTERNATIONAL BIOECONOMY FORUM (IBF) PLENARY MEETING
VIRTUAL EVENT
04 and 06 November 2020**

Minutes

The aim of the 3rd IBF plenary meeting was to update on IBF governance matters, to validate the deliverables of the IBF working groups, and to discuss the role of the bioeconomy in the post Covid-19 world, as well as the future of the forum, including synergies and links to other international bioeconomy initiatives. Due to the ongoing Covid-19 pandemic, the IBF plenary meeting was organised and held as a virtual event.

04 November 2020 – First Part of the IBF plenary meeting

1. Opening remarks by IBF Co-Chairs

The IBF Chair, John Bell, "Healthy Planet" Director in DG Research & Innovation at the European Commission, welcomed the participants of the third plenary meeting of the International Bioeconomy Forum (IBF). He introduced Daan du Toit, one of the two new IBF co-chairs from South Africa.

In his opening remarks, he highlighted that bioeconomy is a central element for the green transition, as well as for tackling common global challenges, and to promote research and innovation. He made reference to the Green Deal, Horizon Europe, and the European Bioeconomy Strategy of 2018.

A brief welcome address was also given by the former IBF co-chairs from 2017-2019, Gilles Saindon, Assistant Deputy Minister at Agriculture and Agri-Food Canada, and Beth MacNeil, Assistant Deputy Minister at Natural Resources Canada. During their co-chair term, the foundations of the IBF future were laid with the development of the working group roadmaps and a vision for the IBF. Canada enjoyed the co-chairing with European Commission and emphasised that the objectives of IBF remain important. Canada will continue to support the IBF activities in the future as working group leads and participants, to advance the roadmaps and work towards the achievement of the UN Sustainability Development Goals and a post-COVID-19 economic recovery.

The last welcome address from Daan du Toit, Deputy Director-General for International Cooperation and Resources, South African Department of Science and Innovation, expressed high appreciation for the fact that South Africa (SA) is the new co-chair of the IBF. Dan highlighted that the IBF is of strategic importance to SA. For bioeconomy development there is a need for global



international cooperation/engagement in research and innovation (R&I). Concerning the global challenges it is more and more important to have friendships across the borders and he is looking forward to the IBF activities.

SA is finalising its 10-year plan for R&I, comparable with the EU research and innovation framework programme. It includes bioeconomy as one of the priorities and hence important investments in the bioeconomy development will be made. The programme is building on the sharing of expertise and policy learning, which are critical for scientific progress. As a third pillar, and illustrated by the COVID pandemic, there is a need for global solidarity, and collaboration. The IBF is an example of such global effort. SA looks forward to hosting the next IBF meeting in SA in 2021.

2. IBF Governance Session

Chair: John Bell, European Commission

The EC Chair, John Bell introduced the agenda.

- The first half of the meeting (04 Nov 2020) will be used to discuss governance issues and to present the deliverables of the working groups.
- The second half of the meeting (06 Nov 2020) will feature discussions on the role of the bioeconomy in the post COVID-19 world and on synergies with other international bioeconomy initiatives.

The agenda was approved by the participants.

The Standing Committee on Agricultural Research (SCAR), representing the European Member States and so far an observer to the IBF, proposed to become a full IBF member. The IBF plenary approved this change without objection. Further, the delegates of the United Kingdom and of Japan were welcomed, both joining the plenary meeting as observers.

No IBF member expressed interest in co-chairing the IBF as of 2021, once the European Commission term ends. John Bell explained that the current COVID pandemic has an influence on these decisions and outlined that the interest could be submitted until the end of 2020. If no member is interested in taking up the open co-chair position, the European Commission is willing to remain co-chair until the end of 2021. In addition, ideas on the co-lead structure would be welcome.

As follow up to the 2019 IBF plenary meeting, the IBF concept note was updated and now includes a section on the inclusion of other types of membership. It has been decided that private companies would not be allowed in plenary meetings, industry associations, academic societies, and NGO's could be allowed to join as observers. Further, a vision and mission statement has been selected and included:

- Vision: A sustainable global Bioeconomy to ensure the quality of life for current and future generations.



- Mission: To coordinate scientific research and foster policy exchange to have a tangible impact in critical and unaddressed areas of the Bioeconomy through a connected scientific and governmental group.

The chair extended an opportunity to the participants make further input even after the meeting.

3. Presentation and Discussion of IBF Working Group (WG) Deliverables

Chair: John Bell, EC

In 2019 the IBF plenary called upon the working groups to develop clear deliverables. The chair invited all working group leads to present these deliverables.

Food Systems Microbiome Working Group

Magdalena Gajdzinska (Directorate General for Research and Innovation, EU) presented the work the **Food systems Microbiome WG** (see presentation attached).

Magdalena Gajdzinska gave an overview of the WG meeting that was held in New Zealand in February 2020. This meeting gave an overview of existing projects and investment mechanisms and addressed research gaps for new collaborations.

She highlighted the status of different publications, e.g. on Microbiome innovations to contribute to Sustainable Development Goals and Green Deal policies submitted to NATURE Microbiology in September 2020. Further collaboration on pasture microbiome involving indigenous collaboration is ongoing between New Zealand and Canada. A pilot on crop microbiome will be further explored.

A question on a repository of all IBF publications came up. The new IBF website could accommodate this. To support better IBF communication, the MicrobiomeSupport project (<https://www.microbiomesupport.eu/>) was established. One of the work packages is meant to support the IBF. In this context, MicrobiomeSupport developed an IBF website. It went live just some days ago: (<https://bioeconomy-forum.org>). This website will give an overview of the IBF vision and mission, roadmaps and activities of the WGs. All relevant documents can be shared through this platform in the future.

It was concluded that the microbiome research is still fragmented and there is a need for alignment, and also, the stakeholder involvement need to be improved, e.g. through video material, brochure, etc.

Anne Bogdanski, FAO, appreciated the work of the WG and expressed support to contribute within the WG. The FAO published a brochure about the microbiome in food systems: "Microbiome: The Missing Link? Science and Innovation for Health, Climate and Sustainable Food Systems"

(<http://www.fao.org/3/ca6767en/CA6767EN.pdf>). The FAO organised a capacity building event in June, emphasising the role of microbiome as a key step for sustainable food systems. The microbiome-food link may be the most important next step for the IBF and to realise bioeconomy goals.

Microbiomes are also relevant for finding solutions for the climate changes challenges, including to address the degradation of chemical pollutants. The JRC also studied microbiomes as indicators of water quality.

Further questions on the pasture microbiome work were raised. In the EU, under the upcoming framework programme Horizon Europe, a dedicated Soil Mission is under development. This will include also the importance of soil microbiomes for sustainability and the restoration of soils. In fact, the role of microbiomes will be systemically addressed on different issues in different areas, including in oceans, microplastics, DNA of the sea, etc.

Ben Durham (SA) commented that work on food systems microbiome should also emphasise on the importance for job opportunities and enterprise development. The bioeconomy strategy in SA includes sections on bioeconomy for job creation and on the importance for climate issues. Job creation and enterprise opportunities are equally important. The question on which organisations and industries could help to restore soil and further develop microbiome applications remains.

The creation of new enterprises and jobs in the microbiome area remains a challenge for the future.

ICT in Precision Food Systems Working Group

Max Kennedy (Ministry of Business, Innovation & Employment, New Zealand) presented the current status of the ICT in Precision Food Systems WG (see presentation attached). Aim of this WG is the development, adoption, and implications of digital technology to all aspects of the food system, from production to consumption. Several meetings have been held already. The international and national benefits of the work were reflected and ideas for future collaboration were highlighted.

Ben Durham (SA) expressed SA's great interest in the work, particularly with COVID-related disruptions to certain food value chains. The identification of remote sensing is important, but what about other phenomics-related equipment (point of care or lab based)?

Max Kennedy highlighted that the focus was on remote sensing, but any other phenomics-related techniques may be added. Other techniques are not excluded, although only implicitly included. For example, a nutrigenomics was not really addressed so far in the WG, although in NZ has a focus on this. If interest among participants, this may be included for new collaborations.



Peter Wehrheim (European Commission) suggested that the work of this group on Digital Technology in the Food Systems would be an excellent topic for next year's UN Food System Summit. Max Kennedy agreed and he is highly interested to attend.

The aim of this group continues to be real scientific collaboration and to check existing opportunities for funding options for the future international collaboration, such as in the ICT-AGRI-Food calls. IBF members participated, but no success so far. It was noted that NZ can fund up to 50% of work outside of the country; NZ is keen on being involved in calls; funding landscape is different and to participate we have to rely on funding agencies, not centrally organised. Another option is to align on bigger platforms to ensure loose collaborations.

John Bell announced new partnerships to be launched under Horizon Europe that could be important for IBF partners.

Chair: John Bell handed over to Daan du Toit to be the chair for the next agenda points

Plant Health Working Group

The WG is led by CA and USA. Alain Houde, Michael Mishkind, and Rubella Goswami presented the current status of the Plant Health WG deliverables (see presentation attached).

The mission of the working group is to facilitate the creation of a network of networks that will share information and increase the capacity to respond to plant health threats in a changing environment. The roadmap and the governance of the network were established. Current task is to write a White Paper on international plant health networks and to formulate the goals synergistically. Workshops are organised to support the drafting of the White Paper. The White Paper will outline the goals and governance of the network of the networks that will work to organise an annual "forum".

It was recommended that the IBF should embrace the one health approach which will bring together environment, animal, and human health in the WGs on Plant Health and on Forestry. In this respect the microbiome is important and it was mentioned that the connection with the Microbiome WG has been discussed in the WG meetings.

The JRC is also focussing on the microbiome and plant health under its bioeconomy portfolio. It is becoming clear that microbiome is linking the different WGs under the umbrella of one health.

The IBF Secretariat encouraged the identification of synergies between the working groups that should and could be deepened. It was proposed to organise regular meetings between all working group leads to achieve this.

Forest Bioeconomy Working Group

Sevrenne Sheppard (Natural Resources Canada), gave an overview of the Forest Bioeconomy WG deliverables (see presentation attached). The aim is to facilitate science-informed market development for emerging forest-based bio-products and services, with consideration for asymmetries among countries. The current status of the three focus areas “Communication Strategies”, “Data and Monitoring” and “Identify and addressing bottlenecks, opportunities and risks” have been summarised.

Anne Bogdanski (FAO) asked for more information about the forthcoming paper on how forest bioeconomy can contribute to the SDGs. It was offered to link and take up the info of the Forest WG in the Bioeconomy Monitoring - Guidance Note of the FAO.

Sarah Mubareka (JRC) confirmed that forest-based indicators are all linked to SDGs. The idea is indeed to link it to the Guidance Note, perhaps as an annex.

Sevrenne Sheppard will change to a new role, the new lead of the Forest Bioeconomy Working Group will be Anthony Imbrogno.

4. Presentation the Bioeconomy Indicator Guidance Document

Anne Bogdanski, Natural Resources Officer at the Food and Agriculture Organization of the United Nations (FAO), gave an overview of work on the Bioeconomy Indicator Guidance Document, which is prepared in a joint effort with the JRC (see presentation). She highlighted the need of a guidance note on monitoring the sustainability and circularity of bioeconomy, especially considering the COVID-19 pandemic. She invited the IBF consortium to review the Guidance Note draft. She will share the document in due time.

The guidance note includes the development of monitoring tools to measure progress, a section on how to define progress; 2050 requires substantive increase of food production because of growth of population and eradication of hunger; need for global priorities; trade off when adopting circular economy that is including hidden costs, failures, tracking of sustainability is needed. The guidance note shall consider concepts on how to make sure to get the big picture in the national/regional frameworks and national differences should not hinder the bioeconomy as a whole. Sustainability is the key.

Two papers are in preparation: one for policy makers, one for scientists. IBF members are invited to review the papers.

In the following discussion the work on the guidance note was acknowledged as a possible foundation to support the cross-WG dialogue and provide common ground for success indicators. The existing structure should be used to build on instead of creating another meeting group.

A more sceptical view pointed out that the objectives are sometimes difficult to achieve as they are subsidiary to the national level and trade-offs are GDP dependent. In this respect the SDGs are of lower priorities and circularity is not always of main priority. This makes it difficult to compare and to measure.

In response to this view it was answered that the SDGs will carefully be analysed on how they contribute to bioeconomy, e.g. DE revised its strategy in context of SDGs, EU is planning a similar approach; Indicators are needed to reflect progress, and discussion needed;

Other reflection in the discussion was that without a healthy biosphere there is no GDP or in simple terms: If we do not understand how we produce and use biomass, we have no bioeconomy.

As a compromise, it was felt that the conversation between countries is a good step in the right direction and will to give different priorities to circularity and sustainability, etc. It was proposed to look at the proportion of 'sustainable' biotechnology applications in the bioeconomy and accept that there is not right or wrong answer but best practices that can be established at local level, depending on the national context. In this respect an inter-country comparison may not be meaningful, but a global view may be more appropriate.

It was concluded that it is important to consider all facets in a proper framework. Specific common indicators are not proposed in the guidance note, but rather concepts on how to make sure you get the big picture in the national/regional frameworks

5. AOB and wrap up by IBF Co-Chairs

John Bell concluded that the working groups showed promising results. Monitoring data sets and modelling are needed and guidance is important to agree on what is sustainable. Yet, more commitment within the WGs is needed to make more progress here.

Action Point:

Roman Brenne from the IBF Secretariat will get in contact with the working group leads to explore a possible collaboration of the working groups under the umbrella of Horizon Europe.

John Bell summarised that the bioeconomy need to become a topic in the public debate and that we all benefit of sharing knowledge. He outlined that the IBF objectives are more relevant than ever. The momentum for international collaboration on policies around sustainability, such as the bioeconomy, is given.

Daan du Toit summarised that the IBF objectives were strengthened, that we identified linkages, and that we will strengthen these linkages. It is important to share information in the group and beyond. SA is currently chairing the African Union and brought these topics on the agenda such that they start to be accepted, other African countries may join the IBF and adopt bioeconomy strategies.



06 November 2020 – Second part of the IBF plenary meeting

6. Welcome by IBF Co-Chairs

Ben Durham (South African Department of Science and Innovation) opened the meeting, replacing the official IBF co-chair Mmboneni Muofhe, who was called to another meeting. Ben Durham welcomed all participants and introduced the agenda. The second half of the IBF plenary meeting included discussions on the role of the bioeconomy in the post COVID-19 world and on synergies with other international bioeconomy initiatives.

7. The role of the bioeconomy in a post COVID-19 world

Chair: Ben Durham

Christine Lang, entrepreneur in biotechnology and a consultant on bioeconomy to the German Government provided a keynote presentation on the role of bioeconomy in the post COVID-19 world (See presentation):

- ➔ Increased integration of nature in modern economic sectors and life sciences this includes biological knowledge, resources, and processes;
- ➔ Technological innovation, social innovation, international cooperation;
- ➔ Within social economy, the concept of circularity and sharing economy is emerging. We need to transfer from research to industry and market implementation;
- ➔ Collaboration on EU research and development level is necessary;
- ➔ Education and communication are very important. The German “Science Year 20/21” focusses on the bioeconomy. This can take bioeconomy into society, making it more tangible for the population;
- ➔ Third Global Bioeconomy Summit will take place from 16 to 20 November virtually;
- ➔ A clear roadmap for the future strategy of the bioeconomy is necessary. Bioeconomy and Health; Science and Tech; Climate action are crucial links;
- ➔ Embrace innovations;
- ➔ We need to implement the research that we have. Get it to the industrial scale, financing is still missing. Framework for investments are needed;
- ➔ Let’s look at what the market, the consumer tells us. Survey EU April: 45% say that it is now the moment to change to sustainable climate-friendly way of acting; and
- ➔ Integrating bioeconomy concepts into lifestyle trends; Government/Industry & business/Citizen this needs to be addressed as a shared responsibility.

Discussion:

International and global perspective in the DE strategy:

- DE is supporting a global strategy;



- Commitment to EU Green Deal;
- Different international collaborations most bilateral, but expanding in whole setting.

Science and patents: balance public interest and patenting: patenting = delaying vs disclosing:

- As entrepreneur, patents are important: patenting does not necessarily delay innovation, after patent application filed, it can be shared info and results can be published.

Milestones in DE on more bioeconomy: regarding the science year 2020/21 - and the focus on biodiversity and microorganisms:

- Organised by ministry of research, everyone can give input: communication, citizen science, new games etc.;
- Microbiomes as research topic: part of strategy and research programmes, part of bioeconomy year: master course to discuss, how communicate to young scientists;
- Post COVID-19 impact: extremely important will help to use bioeconomy technologies.

The role of industry in financing the pilot plants: Is this a solely government role or a private public partnership. Pilot plant importance by design to lose money: can pilot plants have another role than for Gov in PPP?

A second keynote presentation, with a focus the African perspective, was delivered by Rachel Chikwamba, Member of the Council for Scientific and Industrial Research Executive, and Member of the Academy of Science of South Africa:

- ➔ Core priorities and underpinning technologies; skills are crucial in Africa, not just for the technology but also for the innovation;
- ➔ Agriculture; vulnerabilities of food trade systems have been exposed. Need for sustainable and resilient food systems is crucial. How to deal with a lockdown without shutting down food systems?
- ➔ Lot of early stage research and publications; weakening of the good research to translational research so weaker market access;
- ➔ New frameworks that stresses cooperation with shared responsibilities. Indigenous knowledge and how do we utilize this in a fair way; and
- ➔ Global issues of common interest; circular economy, low carbon energy; IKS based concepts.

Significant differences between German and Africa perspective are noted, but for the IBF it is important to include all the perspectives. A white Paper is drafted in SA next to bioeconomy strategy and the economic focus, jobs growth necessary; Health is part of bioeconomy, see zoonotic diseases: towards one-health approach. Efforts are also taken to engage with indigenous people and build on traditional knowledge and ensure benefit sharing.

It was agreed that infrastructure is needed to commercialise the products e.g. pilot plants and manufacturing. In Africa, the aim is to develop movable infrastructures to have the possibility to putting out infrastructure,

Carissa Li (China) mentioned that Chinese bioeconomy report related to COVID-19 has to be delivered this year and that she will share the outline of the report to the IBF.

8. Proposal on a new IBF working group on biorefineries

John Bell chaired the second session and introduced the proposal by South Africa for a new IBF Working Group on Biorefineries.

Konanani Rashamuse (South African Department of Science and Innovation) presented a proposal for a new working group biorefineries (see presentation):

- ➔ World population growth is increasing. Climate change threatens our ability to feed our self. Biorefineries are crucially needed, huge socio-economic and environmental benefits. Supporting the transition to a circular economy and greening of economy. Reducing our dependence on fossil fuels;
- ➔ One of the key drivers is sustainability, it has to be evaluated based on the whole value chain;
- ➔ Biorefinery products have to be market competitive. Integrated approach needed to assure that biorefineries make economic sense.

John Bell asked the IBF consortium if any delegates would like to take part of this Working group. Requirements: Need three more members to create the WG.

Because of technical problems, the decision was postponed since not all delegates of the IBF were present.

Action Point:

The IBF Secretariat will contact the delegates to confirm their participation in the new proposed working group.

The JRC outlined the work on an inventory of biorefineries in the EU (and partly beyond). The interactive dashboard about EU biorefineries/bio-based plants (https://datam.jrc.ec.europa.eu/datam/mashup/BIOBASED_INDUSTRY/index.html) and a short accompanying report (<http://dx.doi.org/10.2760/745867>). Probably there's scope for exchange.

Argentina expressed interest in this topic of biorefineries, but needs time to decide whether endorsement to participate can be given.

NZ acknowledged the role of biorefineries in the strategies to address climate change and for economic growth. Many of the topics are likely to be of interest and value to our research institutes, who may wish to participate. However, the development of a national biorefineries roadmap is not within scope of issues that NZ could commit to if we were to participate in the

group, but we don't have any issue with other IBF participants discussing this issue in the group or producing their own roadmaps should they wish to.

9. Synergies with other international bioeconomy initiatives

Chair: John Bell

John Bell: Introduced the last session on the future of the IBF and possible synergies to other international bioeconomy initiatives, such as the Global Bioeconomy Summit (GBS) and the International Sustainable Bioeconomy Working Group of the FAO.

Christine Lang highlighted that it is important to connect and to keep and strengthen the keep international cooperation. One possibility is the GBS that will take place virtually this year. The GBS was hosted three times by Germany. The International Advisory Council (IAC) of the GBS is currently working on its structure beyond 2020. Bioeconomy is on one hand regional and local, on the other hand it is all connected internationally and globally, it is necessary to keep and foster this international collaboration. It should be an inclusive organisation where experts from all countries meet.

Anne Bogdanski referred to the International Sustainable Bioeconomy Working Group of the FAO and the Food Systems Summit planned in New York 2021.

It was agreed that we need a good connection also for the global level, ensuring inclusiveness of wealthy industrialised countries and developing countries. There is a global and shared responsibility, and a need for mechanisms that support internationalization of bioeconomy. For example, Africa has a wealth of biological resources, but lacks skills and applications to turn this into sustainable industries. Hence the need to transferring and translating techs and skills across the globe.

In this respect it was noticed that many of the aspects that were discussed during the meeting have been or are currently also addressed in the Working Party for Biotech, Nanotech and Converging Techs (BNCT) at the OECD. Many relevant publications have been made on the topic. A dialogue with OECD may be envisioned or may in fact already be ongoing as several of the IBF countries also participate in the BNCT.

Action Point:

John Bell concluded that where we are at a point where we should set out an ambition paper paper to clarify practical things, e.g.:

- how to move forward within the next three years;
- what is the best and easiest way to connect, including with different international initiatives, such as UN-FAO, GBS, OECD-BNCT;
- how to bring the work to the attention citizens and the political leadership;



- what is the ambition of the IBF?

Priority to have a navigation system for the people: planning milestones, events, highlighting what is already there. The dialogue between the working groups should be stimulated as there is a common international agenda.

The idea to draft an ambitions paper was welcomed as it would be helpful to have something relatively clear and concise that helps to clarify what the IBF is intending to achieve over the next period.

10. Wrap-up by IBF Co-chairs

John Bell summarised the current status of bioeconomy and the future IBF activities. Bioeconomy is an international/global issue.

The IBF should be moving from a technology view to a policy view that is bringing technologies together, and providing a societal view, while emphasising on sustainability and inclusiveness with fair and just return. The works of the WG on Food Systems Microbiome has a horizontal focus that is important in all aspects of the bioeconomy.

A significant shift is ongoing with respect to the bioeconomy. It is clear that there is not a single model to realise the goals. The developments are interesting to see as bioeconomy is becoming mainstream. Therefore the concept of bioeconomy should be structured more to explain to the outside and framing conditions should be crystallising and connecting technology policies and bring convergence.

Towards deployment of the bioeconomy it is important to support the de-risking of biorefineries and ensure financial investments especially also in preparing for the post COVID period; EU-efforts should be spend good and support an industrial system change, and socio economic involvement. The German model of inclusion in strategies is a good example, it includes demonstrating, democratising.

On internationalisation of deployment, efforts are needed to make opportunities available and move from niche to common skills. There is a need to collaborate and not to compete;

The main policy of the EU for the next 30 years will be the European Green Deal. The bioeconomy aligns the economy with the biosphere and is crucial for the Green Deal objectives. The emphasis on a fair and just transition is strongly present. Bioeconomy is also part of the Common Agriculture

Programme (CAP) and its mission has a strong impact on the planet as it addresses climate resilience, soils restoration, and oceans.

Aspects of finance and investments are an important part to reach the goals, hence a new taxonomy should be developed to realise the ambitions and support climate neutrality.

A circular biobased community, including biorefineries will support the transition needed. In the whole effort the need for international cooperation cannot be strong enough be stressed, this can be a thematic international and bilateral collaboration, we need to work across different fora and integrate work that is critical for health energy food work water.

Ben Durham agreed that this is a global phenomenon, and he highlighted that in Africa the recognition of the bioeconomy is improving and increasing. A first bioeconomy conference was recently held in East-Africa. It is important to share, work together, and change the world views on how sustainability can be achieved. It is not only about new technology, but also advising governments and how to implement a sustainable bioeconomy.

Next IBF plenary meeting will take place in 2021 and will be organised by South Africa.

Both co-chairs thanked the participants for their commitment and their contribution and closed the meeting.

Participants:

Country/Organisation	Position	Name
European Commission - DG RTD	Director - IBF Co-Chair	John Bell
European Commission - DG RTD	Head of Unit - Bioeconomy & Food Systems	Peter Wehrheim
European Commission - DG RTD	Head of Sector - Bioeconomy	Charlotte Sode
European Commission - DG RTD	Policy Officer - IBF Secretariat	Roman Brenne
European Commission - DG RTD	Policy Officer	Órlaith Ní Choncubhair
European Commission - DG RTD	Policy Officer	Kristina Bole
European Commission - DG RTD	Policy Officer	Adrian Tistan
European Commission - DG RTD	Policy Officer	Giuseppe Pellegrino
European Commission - DG RTD	Policy Officer - Microbiome Working Group Lead	Magdalena Gajdzinska



European Commission - DG RTD	Deputy Head of Unit - Bio-based Industries	Petra Goyens
European Commission - DG RTD	Policy Officer	Veera Tahvanainen
European Commission - JRC	Head of Unit - Bioeconomy	Elisabetta Balzi
European Commission - JRC	Scientific Officer	Sarah Mubareka
European Commission - JRC	Scientific Officer	Marios Avraamides
European Commission - JRC	Scientific Officer	Robert M'Barek
European Commission - DG AGRI	Policy Officer	Michael Wolf
European Commission - DG AGRI	Policy Officer	Gisela Quaglia
European Commission - DG GROW	Policy Officer	Maila Puolamaa
South Africa - Department of Science and Innovation	Deputy Director-General for International Cooperation and Resources - IBF Co-Chair	Daan du Toit
South Africa - Department of Science and Innovation	Deputy Director-General for Technology Innovation - IBF Co-Chair	Mmboneni Muofhe
South Africa - Department of Science and Innovation	Chief Director: Bio-innovation at the National Department of Science and Innovation	Ben Durham
South Africa - Department of Science and Innovation	Senior Science & Technology Representative to the EU	Vinny Pillay
South Africa - Department of Science and Innovation	Director: Industry and Environments - IBF Secretariat	Konanani Rashamuse
South Africa - Department of Science and Innovation	Deputy Director: Strategic Partnership - IBF Secretariat	Tugela Matubatuba
South Africa - Department of Science and Innovation	Deputy Director: Strategic Partnerships	Toto Matshediso
Teagasc - Ireland	Head of Research Support - SCAR Delegate	Raymond Kelly
Food and Agriculture Organization of the United Nations	Natural Resources Officer	Anne Bogdanski
Food and Agriculture Organization of the United Nations	Senior Advisor to the Chief Economist	Karel Callens
Inter-American Institute for Cooperation on Agriculture	Director, External and Institutional Relations	Beverly Best
Argentina - Ministry of Science, Technology and Innovation	Coordinator of the Liaison Office Argentina – European Union	María Alejandra Davidziuk
Chinese Academy of Sciences - Institute of Microbiology	Executive Director	Yu Bo
Chinese Academy of Sciences - Institute of Microbiology		Hui-hui Li



Chinese Academy of Sciences - Institute of Microbiology		Shuang-Jiang Liu
New Zealand - Ministry of Business Innovation & Employment	Senior Policy Advisor – International Science Partnerships	Milena Scott
New Zealand - Ministry of Business Innovation & Employment	Science & Innovation Counsellor to the EU	Peter Bartlett
New Zealand - Ministry of Business Innovation & Employment		Imogen Roth
New Zealand - Ministry of Business Innovation & Employment	National Manager for Biological Industries - ICT In Precision Food Systems Working Group Lead	Max Kennedy
New Zealand - Ministry of Business Innovation & Employment	Investment Manager - ICT In Precision Food Systems Working Group Lead	Camilla Gardiner
Japan - New Energy and Industrial Technology Development Organization (NEDO)	Senior Analyst	Yoshiyuki Fujishima
Hungary - Permanent Representation to the European Union	Counsellor - BIOEAST Secretary General	Barna Kovacs
United Kingdom - Department for Environment, Food and Rural Affairs	Chief Scientific Adviser	Mike Collins
United Kingdom - Department for Business, Energy and Industrial Strategy	Policy Advisor	Peter Cottrell
United Kingdom - Biotechnology and Biological Sciences Research Council	Head of International Relations	Tim Willis
United Kingdom - Department for Business, Energy and Industrial Strategy	Head of Bioeconomy & Plastics	Rohan Kemp
India - Department of Biotechnology, Ministry of Science & Technology	Advisor	Mohd Aslam
USA - Department of Agriculture	Senior Advisor for International Affairs - Office of the Chief Scientist	Jaime Adams
USA - Department of Agriculture	Plant Health Working Group Co-Lead	Rubella Goswami
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Agriculture and Agri-food Canada	Director-General	Benoît Girard
Agriculture and Agri-food Canada	Director	François Eudes
Agriculture and Agri-food Canada	Director - Plant Health Working Group Co-Lead	Alain Houde
Agriculture and Agri-food Canada	Director	Ranjana Sharma
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Agriculture and Agri-food Canada	Policy Analyst	Christina Horst
Agriculture and Agri-food Canada	Senior Policy Analyst	Sara Sarkar
Agriculture and Agri-food Canada	Deputy Director for Europe	Moses Iziomon
Agriculture and Agri-food Canada	Deputy Director – Bioeconomy	Erika van Neste
Agriculture and Agri-food Canada	Senior Advisor	Terra Jamieson
Natural Resources Canada	Assistant Deputy Minister	Beth MacNeil
Natural Resources Canada	Policy Analyst - Forest Bioeconomy Working Group Co-Lead	Anthony Imbrogno
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Canadian Food Inspection Agency	Executive Director	Pierre Bilodeau
Keynote Presenter	GBS IAC Co-Chair	Christine Lang
Keynote Presenter	South African member of the Council for Scientific and Industrial Research Executive	Rachel Chikwamba
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