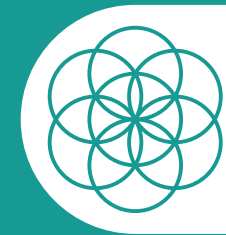


A YEAR OF COLLABORATION REVIEWING 2017



RSB
Roundtable on
Sustainable Biomaterials
www.rsb.org



Photo by Morais on Unsplash

EXECUTIVE DIRECTOR'S WELCOME

It has been an incredible year for the RSB and it's a great pleasure to welcome you to join us in reflecting on 2017 in this review. The innovative partnerships and collaborations that we have formed and been involved with this year are the inspiration for our report's theme of collaboration.

In early 2017, after an intense and fun development process, we launched our new and revitalised brand, which is supporting increased engagement with RSB. The new logo, brand and messaging reflects our important contribution and collaborative approach to the bioeconomy.

With this forward-looking approach, 2017 saw us working in new markets, launching new partnerships and reinvigorating existing ones, taking part in new technical projects and expanding RSB's scope into new sectors and regions.

Among our new collaborations, we welcomed the Mexico Biojet Cluster as a member and worked with them to develop a sustainable supply chain for biofuels in Mexico. We also worked with ICAO supporting their Alternative Fuels Task Force, with technical expertise for the development of the CORSIA regulations. RSB worked on an innovative project with partners to examine the future role of blockchain technology in certification. We also launched a partnership with IICA to develop sustainable supply chains for aviation across Latin America.

We also engaged with partners worldwide to develop regional indicators. Working with Boeing and WWF in South Africa, the State

Ministry of Energy in Queensland, Australia and the Department of Energy in the USA, we have simplified the certification process in these regions.

Thanks to the input of members from across sectors RSB approved the Advanced Fuel Standard – acknowledging the increasing importance of new and novel feedstocks, and RSB's growing role in the Circular Economy. With 27 experts from 17 organisations involved in its development, the approval of the new standard and its continued development has been a true showcase of our collaborative approach to defining the future of the sustainable bioeconomy.

In 2017, we saw RSB's role continue to evolve beyond certification to support the development of solutions, policies and innovations that will be the backbone of the sustainable bioeconomy – and as we look to the future we will broaden our engagement in strategic partnerships that develop the broader bioeconomy landscape in which we all operate.

Our successes in 2017, and in the years to come, are enabled by the vision and dedication of our board, members and stakeholders in the bioeconomy, as well as our excellent team.

Thank you for your continued support,

Rolf Hogan
RSB Executive Director



Photo by Jeremy Estroff on Unsplash

2017 HIGHLIGHTS

IICA Partnership

At the RSB Annual Meeting in Vancouver in November 2017 we announced General Agreement for Technical Cooperation with the Inter-American Institute for Cooperation on Agriculture (IICA) to support the implementation of the RSB Standard for biomass producers in the Americas.

Mexico Biojet Collaboration

In September 2017 we partnered with Mexico Biojet Cluster, represented by Ciatec, to support the development of a national sustainable aviation fuel industry, with production certified by RSB.

As a user of AltAir Fuels, we celebrate the RSB certification of the Paramount facility. United Airlines is committed to the commercialisation of sustainable aviation fuels and we applaud this achievement.

Angela Foster-Rice
Managing Director of Environmental Affairs and Sustainability, United Airlines

We have worked with the organisation’s technical staff to enable them to understand and apply the RSB standards, procedures and certification process.

P&G Joins RSB

In a reflection of the progress of the bioeconomy, Procter and Gamble (P&G) became the first Fast Moving Consumer Goods (FMCG) company to join our member community.

UPM Biofuels Certification

UPM Biofuels has received a sustainability certificate for the cultivation of the Brassica carinata crop – a new feedstock for biofuel production – in Uruguay.

AltAir Certification

The certification of AltAir to produce biojet fuel, renewable diesel and naphtha, a gasoline component, is an industry first that sees AltAir join the ranks of RSB-certified operators who have applied the RSB Global Standard to guide the development of sustainable sources of biofuel.



2017 HIGHLIGHTS

US Indicators and Corn Stover Protocol

The approval of our US National Indicators on 14th November provides specific support and guidance for operators wishing to comply with RSB's Standard and employs our risk-based approach to simplify the process for operators who are already compliant with national regulations. Our corn stover protocol supports producers and auditors to ensure that removal of corn stover for cellulosic biofuel or bioproduct production is done in a way that ensures optimal soil health.

Advanced Fuel Standard

The RSB accepted and adopted the revised Standard for Advanced Fuels based on the proposal of the RSB's Technical Working Group on End-of-life products, By-products and Residues. This groundbreaking Standard acknowledges the increasingly important role of waste and residue feedstocks, and also end-of-life products to contribute towards a circular economy.

ISEAL Innovations Fund Blockchain Project

We partnered with UPM Biofuels and Provenance to launch a project, funded by the ISEAL Innovations Fund, that is examining the potential of blockchain in sustainability certifications.

WWF Germany Recognises RSB as Best Practice for Water

WWF Germany published a progress report, in collaboration with Edeka, which examined water risk in agricultural supply chains and reviewed how well sustainability standards cover water stewardship. This rated RSB's Standard as showing best practice in relation to water rights, catchment impacts, collaboration, quantitative water use information, water use efficiency and contextual water quantity limitations.

“ The RSB is a key player in the biojet industry and it's been very interesting to see the evolution of the organisation. In Mexico it has been very helpful to have the RSB standard to help policy makers build their capabilities. Not everyone understands the complexities which is why the RSB's approach to sustainability is so useful and encouraging for both Mexico and Brazil. ”

Tania Buenrostro
Mexico Biojet Consortium

MEMBERSHIP UPDATE

Celebrating our new members of the RSB in 2017. We welcomed:

New Members:

- 1 **Agrisoma Biosciences Inc.**
- 2 **American Chemistry Council**
- 3 **A.P. Moller - Maersk**
- 4 **Procter & Gamble (P&G)**
- 5 **Mexico Biojet Cluster, represented by Ciatec**
- 6 **Upgreen (Associate Member)**
- 7 **ASB Biodiesel (Associate Member)**



As membership increases the list is updated regularly on the new website:
<http://rsb.org/membership/membership-list/>



In 2017 we welcomed the first members to take up our new value-added membership packages. The Mexico Biojet Cluster, represented by Ciatec, became our first brand member and P&G took up a technical membership. Both packages ensure greater collaboration opportunities and support for members entering the sustainable bioeconomy.


SMALLHOLDER UPDATE

RSB's work with smallholders aims to improve the living conditions of small farmers, promote sustainable practices based on the RSB Standard and link certified products to market.

Spotlight on Africa

Sponsored by the Boeing Citizen Program, the RSB is supporting Selokong Sa Dimelana (SSD), meaning rich soil, which works with emerging and smallholder farmers in rural Limpopo, South Africa, to grow castor trees and harvest their beans. The beans are then processed at WITS University in Johannesburg into biodiesel. While the project is still at the pilot stage, the farmers will soon be producing enough to sell the castor beans for cosmetics and lubricants, biodiesel, and castor cake fertiliser.

The RSB is assisting the programme with sustainability training for farmers and programme co-ordinators, sustainability risk assessments, assistance to develop a chain of custody system for quality control and scalability, and compiling a lifecycle GHG assessment for the biodiesel supply chain which will provide a proven end-product claim on emissions reduction.



*RSB is working with the **Boeing Citizen Program** on their project **Aviation Biofuels** in sub-Saharan Africa, in collaboration with **WWF-SA** and **South African Airways** to assess the long-term viability of the sustainable aviation fuel market in sub-Saharan Africa and to support initiatives that develop smallholders in the region.*

CERTIFICATION

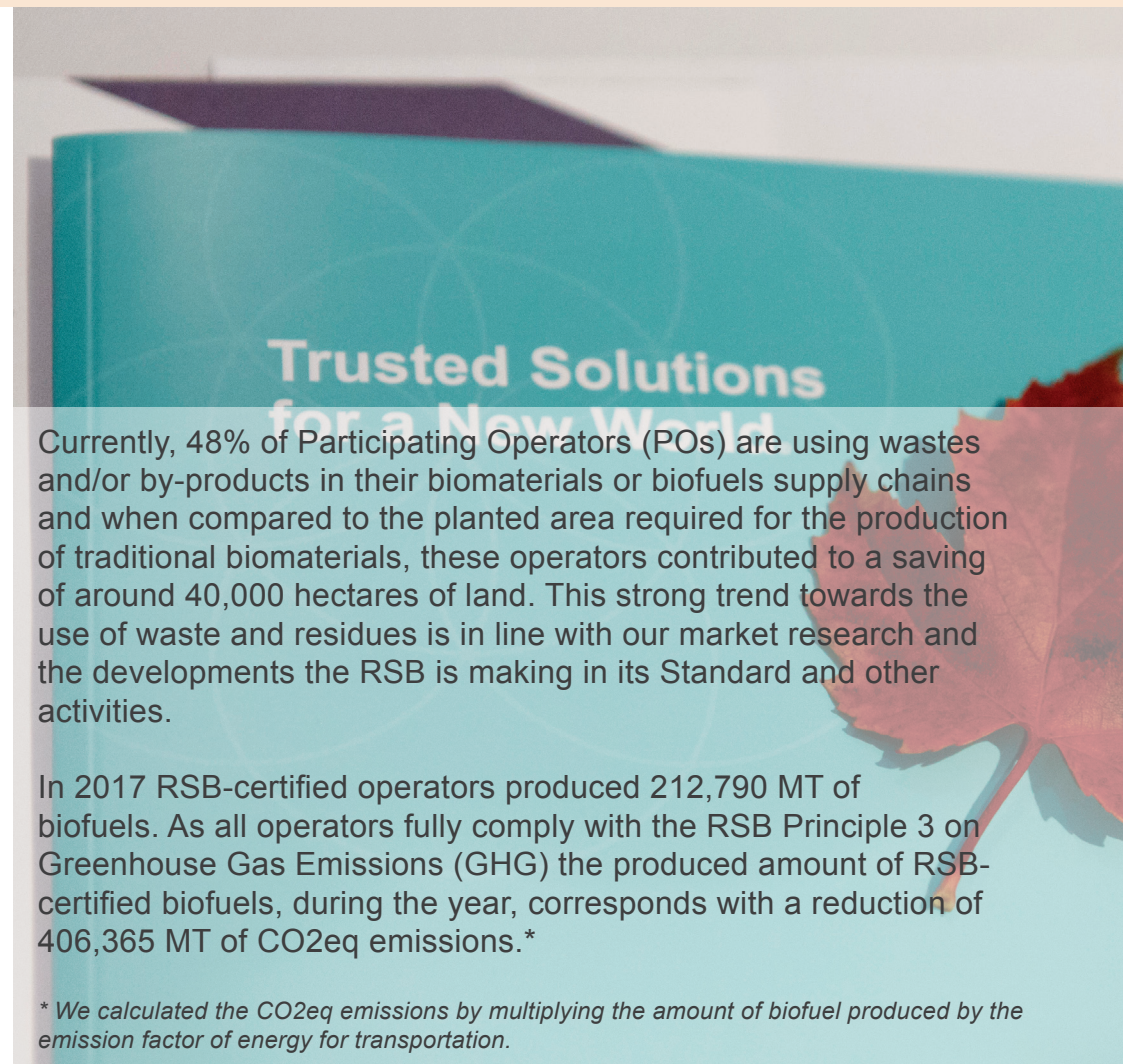
The RSB M&E System measured certified operators, operational sites included in the scope of certification and countries of operation. Since the last outcome report, the RSB saw growth in all categories, except farms:

Outcome Report	Operators	Sites	Farms	Countries
October 2014	17	23	166	14
December 2016	20	49	472	18
December 2017	23	58	464	19

The number of operational sites grew significantly, while there was only a slow growth in total operators certified. This is due to the unique characteristics of the RSB standard, which allows operators to define the scope of certification according to their own management structure.

By the end of 2016 we welcomed the following certified participating operators:

- 1 ASB Biodiesel
- 2 AltAir Fuels
- 3 UPM-Kymmene Corporation



Currently, 48% of Participating Operators (POs) are using wastes and/or by-products in their biomaterials or biofuels supply chains and when compared to the planted area required for the production of traditional biomaterials, these operators contributed to a saving of around 40,000 hectares of land. This strong trend towards the use of waste and residues is in line with our market research and the developments the RSB is making in its Standard and other activities.

In 2017 RSB-certified operators produced 212,790 MT of biofuels. As all operators fully comply with the RSB Principle 3 on Greenhouse Gas Emissions (GHG) the produced amount of RSB-certified biofuels, during the year, corresponds with a reduction of 406,365 MT of CO₂eq emissions.*

* We calculated the CO₂eq emissions by multiplying the amount of biofuel produced by the emission factor of energy for transportation.

CERTIFICATION



54,240 hectares of land
is protected by RSB certification

On this land, responsible and sustainable practices, as per the RSB's **Principles & Criteria**, are implemented, for example:

- Soil erosion reduction and soil conservation practices
- Improvement of soil quality
- Water management
- Protection of conservation values



5339 workers
are covered by RSB certification

RSB Certification ensures workers are protected by our requirements on human and labour rights, including:

- Freedom of association
- No slave labour or forced labour
- No child labour
- No discrimination
- Minimum wage
- Safety and health
- Grievance mechanism for workers

The NRDC's Aviation Biofuel Scorecard encourages airlines to purchase only sustainable aviation fuel using rigorous third-party certification standards – with a strong preference for the RSB because it assures reduced emissions across a biofuel's entire life cycle, from production through use, as well as limiting adverse impacts on food security, land, water, air, wildlife and local communities.

POLICY AND STANDARDS

In 2017, the RSB worked on several major developments to ensure that we continue to reflect the evolving nature of the bioeconomy.

We worked with stakeholders around the world to develop our new Standard for Advanced Fuels and to commence the revision of our Standard for Bioproducts. We also developed regional indicators for the USA, South Africa and Queensland, and produced our US corn stover protocol. Our role as a technical advisor to the ICAO Alternative Fuels Task Force continued.

Our Technical Working Groups bring together experts from across the globe to work on how best to respond to the changing world of biomaterials. NGOs, producers, end-users, academics and more work together to develop RSB's policies and Standards.

GROUNDBREAKING STANDARD DEVELOPMENT IN 2017

Standard for Advanced Fuels

RSB established a technical working group for end-of-life products, by-products and residues to work on how to define residues, how to include non-biogenic feedstocks and how to include indirect effects. This working group brought together 27 experts from 17 countries – including NGOs, producers, end-users and more – who developed a proposal for how to include waste and residues in energy production.

This proposal was accepted by our delegates at the RSB Annual Meeting in November 2017 and has been officially adopted by the RSB.

The RSB Standard for Advanced Fuels considers traditionally used materials like agricultural and forestry residues, used cooking oil and municipal solid waste as well as the new material category of fossil waste material including waste plastic, end-of-life tyres and

CO₂ captured from flue gas. This groundbreaking standard, the first of its kind, supports the use of waste and residue materials and reduces the pressure on agricultural land for bio-based feedstocks.

Following the adoption of the standard the technical working group continues its efforts to develop a commonly accepted approach for modelling displacement effects that might occur if material streams are being diverted from other uses.

▮▮ Using wastes and residues as feedstocks is essential to give carbon a second chance at life, making new products that would otherwise come from fossil resources. LanzaTech and our partners turn to RSB to guide us in ensuring that wastes and residues can be used sustainably to create a carbon-smart world. ▮▮

Dr. Jennifer Holmgren; CEO, LanzaTech

POLICY AND STANDARDS

Global growth and innovation through policy and standard development.

Standard for Bioproducts

In 2017 the RSB launched the revision of our Standard for Bioproducts, which will see it evolve into the RSB Standard for Advanced Materials by the end of 2018. The Standard for Bioproducts covers all products that do not involve energy generation. The revision has included a workshop at the RSB Annual Meeting where delegates discussed topics including Greenhouse Gas calculations of bioproducts, the inclusion of mass balance approaches and claims. The final revision will see our Standard for Bioproducts renamed to reflect the inclusion of recycled carbon as a feedstock.

Regional Indicators

The RSB's risk-based approach allows us to assess sustainability risks according to regional legislation and other voluntary standards, significantly easing the certification process for operators.

Regional indicators are based on a comparison of the regulatory and legislative framework in a region with the RSB Standard to identify gaps and overlaps. This is supported by robust stakeholder engagement that identifies how thorough the implementation of this legislation and regulation is. On this basis the RSB can develop regional indicators that make audits more efficient and effective by saving time and directing auditors to risk areas.

In 2017, we developed indicators for the US, South Africa and Queensland. The USA indicators were approved in November 2017,

with the South Africa and Queensland indicators to be approved in 2018. We will also begin work on indicators for Mexico and Ethiopia in 2018.

Corn Stover Protocol

Corn stover is used for cellulosic biofuel and bioproduct production. The RSB worked with partners in the USA to develop a protocol to assist auditors and producers in assessing the volumes of corn stover that can be removed from fields without having a detrimental impact on the ecosystem. Stakeholders involved in the development of the protocol included the United States Department of Agriculture (USDA), NRCS Soil Science Division, the USDA Agricultural Research Service as well as US-based industrial and NGO participants.

UN ICAO CAEP Alternative Fuels Task Force

The RSB participated in the UN ICAO Alternative Fuels Task Force as a technical expert to guide the work and development of the CORSIA regulations related to sustainability criteria, traceability, and robust auditing and certification.



ADVISORY SERVICES

Looking to expand our footprint beyond certification, RSB began offering advisory services and in 2017 these business solutions really took off. Through technical and strategic advice, hands-on implementation, staff training and research, we work with organisations to apply the principles of our world-class sustainability Standard across policy, projects and operations.

As of December 2017, we had eight projects across eight countries that were either in implementation, or had concluded during the year. By providing training for implementation of RSB standards, analysis of sustainability standards or management practices already used in the supply chain, development of national or regional RSB indicators, supply chain mapping and more, we have assisted the organisations and companies we work with to navigate the new challenges and opportunities presented by the development of a sustainable bio-economy.

“ The RSB certificate is a key factor for our company and development process. With RSB, we proved our Solaris technology under different aspects respecting sustainability criteria. Thanks to all partner efforts, we earned this important certificate. RSB believed in our technology and gave us the right advice to improve it during our scale-up programme. ”

Sergio Tommasini
CEO, Sunchem Holding

MARKETING AND COMMUNICATIONS

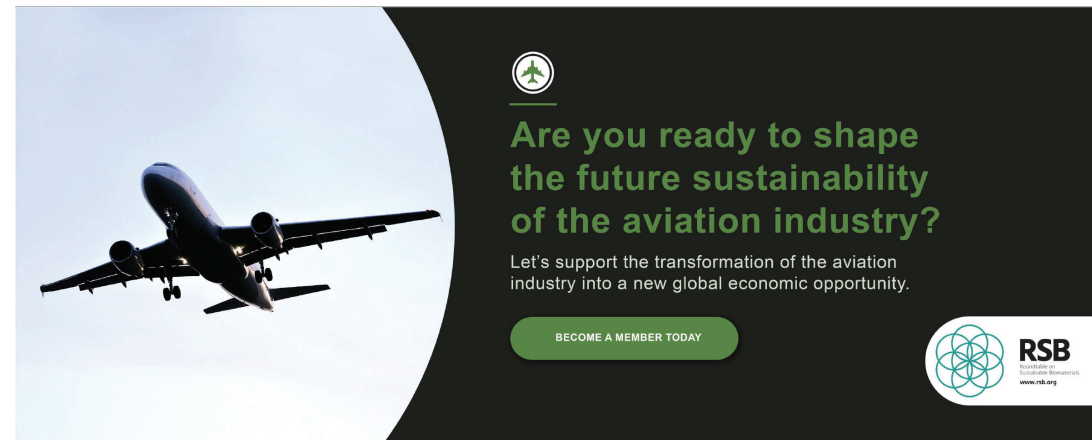
Early 2017 saw the launch of our refreshed brand, website and positioning, which reflected RSB's role as a key driver of the sustainable bioeconomy.


Through the year we benefitted from a Packard Foundation Organisational Effectiveness Grant that has been used to strengthen and build capacity in our marketing and outreach activities. This work aimed to support RSB to grow the market for certification, membership and advisory services while also reaching a wider audience and engaging global brands, influencers and key accounts as part of its Business Development Strategy. The work covered four key areas – brand collateral and communications strategy, brand development and brand stories, membership and social media strategy – that were identified as key to our operational effectiveness and that will allow RSB's work to have maximum impact in the years to come.

By developing additional strategies and concepts for implementing the new branding, increasing communications reach and effective marketing, this work has helped to support the effectiveness of RSB as an organisation and to ensure effective, impactful and focused communications and marketing going forward.




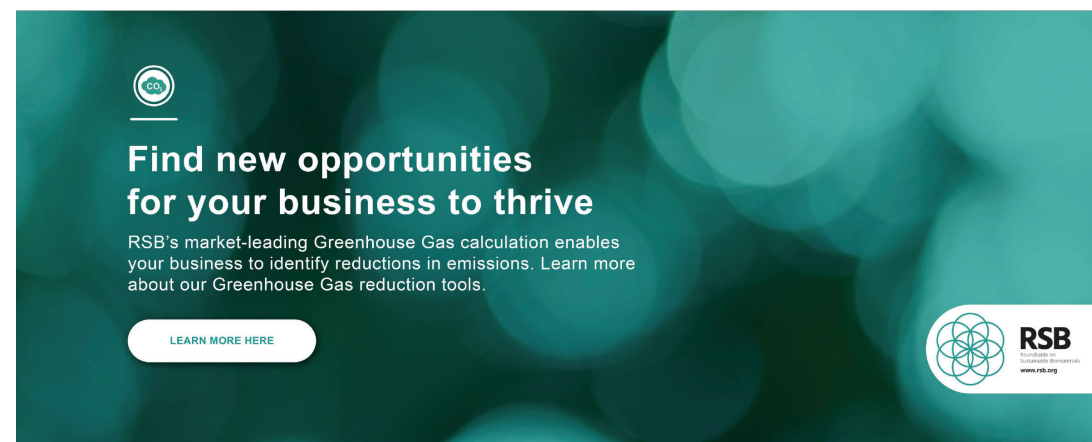
Join the conversation and network on our Twitter feed: [@rsb_org](https://twitter.com/rsb_org)





Are you ready to shape the future sustainability of the aviation industry?
Let's support the transformation of the aviation industry into a new global economic opportunity.


[BECOME A MEMBER TODAY](#)

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Find new opportunities for your business to thrive
RSB's market-leading Greenhouse Gas calculation enables your business to identify reductions in emissions. Learn more about our Greenhouse Gas reduction tools.

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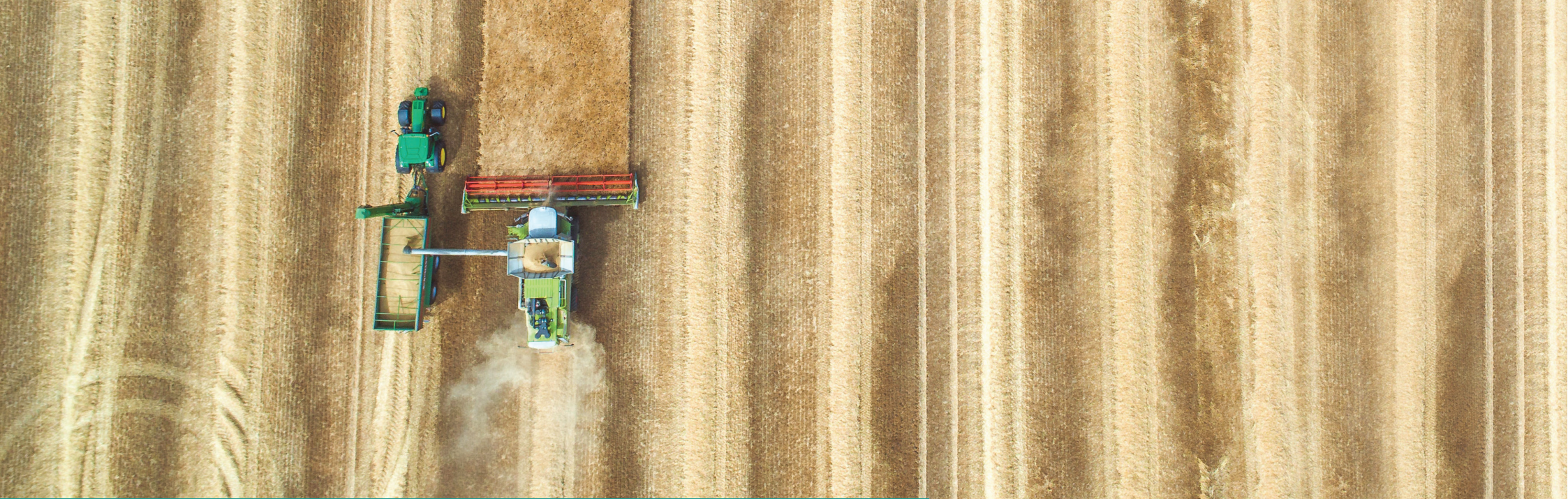


Photo by Cloudvisual on Unsplash

BUSINESS DEVELOPMENT AND OUTREACH

Our business development activities built on the foundations created in 2016 by expanding outreach and business development activities to various industry sectors. By working with global brands and companies in the apparel, retail, Fast Moving Consumer Goods (FMCG), bioplastics, packaging, marine fuels, pulp and paper, aviation and airports sectors, RSB has been cementing its position as the partner of choice in the wider bioeconomy.

We have focused on developing sector specific strategies and value propositions that highlight the applicability of RSB as a solution, particularly in feedstock flexibility that has many advantages for global companies. By showcasing our expertise and collaborative approach with partners like Canopy, who contributed their expertise at the RSB Annual Meeting, and the Bioplastics Feedstock Alliance, we have worked to place the RSB in front of new sectors. We also developed new relationships and collaboration opportunities with key accounts in two major regional aviation hubs in Africa – Ethiopia

and South Africa.

Further building on these sector collaborations, we attended events and industry associations, allowing us to develop strategic relationships with global brands. Our presence at these events, including Sustainable Brands Copenhagen, World Bio Markets in Amsterdam, the Bio-based Materials Conference in Cologne and more, has helped to build our visibility, recognition and RSB preference, and supported real impacts on the ground and in supply chains.

*RSB partnered with **Sustainable Brands Copenhagen**, **World Bio Markets** and more to give our members exclusive access to discounts and to showcase the importance of the sustainable bioeconomy.*

BUSINESS DEVELOPMENT AND OUTREACH

Adding value for our members and partners through new channels, events and opportunities for collaboration

RSB's business development activities continued to focus on our membership proposition and engaging new and existing members across all sectors. By developing new membership options – our brand and technical packages – we have aimed to offer enhanced value. In 2017 we welcomed our first new members for each package – P&G joining us with a technical package and the Mexico Biojet Cluster joining with our brand package.

We hosted our second aviation business forum, partnering with IATA at their Alternative Fuels Symposium in Vancouver, which looked at the challenge of getting biojet to scale – with speakers and delegates from across the aviation industry represented and looking at the key challenges and opportunities that exist in commercialising sustainable aviation fuels.

The event was opened by RSB board co-chair, Stephen Elliot-Wetmore, on behalf of our business forum co-hosts, WWF. A range of experts from the various parts of the aviation supply chain participated in lively conversations on the opportunities and benefits, risks and challenges in commercialising sustainable aviation fuel.

The role of other bioproducts and biomaterials was also highlighted, with participants making the case that developing sustainable aviation fuel must be linked with the sustainable development of the bioeconomy as a whole.

Speakers included Professor Jack Saddler from the University of British Columbia, Amy Malaki from the Climateworks Foundation, Steve Fabijanski from Agrisoma and representatives from Boeing, Airbus, Cathay Pacific, GOL Airlines and more.





GOVERNANCE

RSB is run by its members. Our members support the organisation in determining the direction of a healthy and sustainable bioeconomy. They come together once a year at our Assembly of Delegates at the RSB Annual Meeting to approve changes to the standards, appoint the Board of Directors, review the accounts and make any adjustments to the rules and governance of the organisation.

LIST OF DIRECTORS AT 31.12.2017

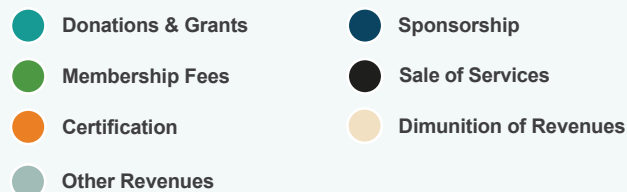
Chamber 1	Jill Kauffman Johnson and Sriram Srinivasan
Chamber 2	Robert Boyd
Chamber 3	Deberson Ferreira Jesus
Chamber 4	Stephen Elliot-Wetmore
Chamber 5	Kevin Fingerman

FINANCIALS

Revenue

The total revenue in 2017 was

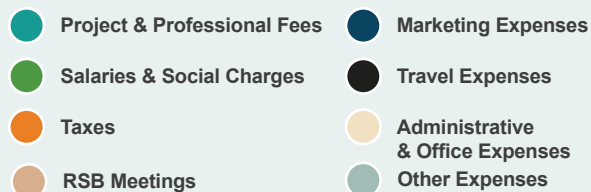
CHF 901,372¹



Expenditure

Total expenses in 2017 amounted to

CHF 1,088,295²



Cash

At the end of 2017, total cash in the bank account was

CHF 691 536

¹The biggest single share is represented by the **Swiss State Secretariat for Economic Affairs (SECO)** with the **Packard Foundation** and **Boeing Corporate Citizenship Programme** also contributing significantly to the RSB budget.

²The Audited Accounts show an operational loss of approximately CHF 187,000 for 2017. This was largely due to an improvement in our accounting methods. By applying best practice accounting principles to grant income, unspent grant income becomes a future liability, as the obligations of the grant still need to be fulfilled. In 2017, unspent grant income amounted to approximately CHF 400 000, which was deducted from the "Donation and Grants" revenue in the Statement of Earnings.

JOIN US IN DRIVING THE DEVELOPMENT OF A SUSTAINABLE BIOECONOMY



Photo by Gustavo Quepon on Unsplash



THAT WILL OFFER:

Trusted Solutions for a New World®

Advisory Services

The RSB offers a combination of tailored advice and training to help companies implement the systems necessary to achieve sustainability and, potentially, certification in a way that aligns with their existing business systems. The RSB can help to ensure that, when a company is implementing new procedures or commissioning a new process, all activities are compatible with the relevant RSB criteria and built in from the start.

Certification

The RSB's user-friendly certification scheme is the strongest and most trusted of its kind. It verifies that biomaterials, biofuels and biomass are socially responsible, environmentally sustainable and credibly sourced, thereby mitigating business, environmental and social risk.

Membership

RSB members are part of a worldwide movement of businesses, NGOs, academics, government and UN organisations that demonstrate their commitment to best practice for sustainable biomaterial, biofuels and biomass production. This independent organisation unites these global stakeholders and is the most trusted, peer-reviewed membership community active in the bioeconomy that promotes bioproducts which enhance rural development, reduce greenhouse gas emissions and promote food security.

CONTACT DETAILS

Questions about RSB and the work we are doing in the sustainable bioeconomy? Reach out to us to learn more!

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