



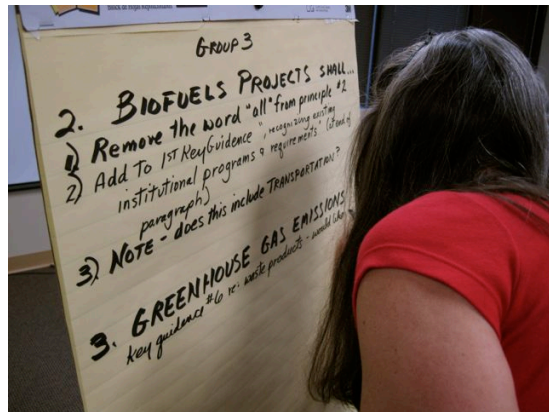
DOE Sustainable Landscape Design Argonne National Laboratories



Matthew Rudolf
Roundtable on Sustainable Biomaterials

Roundtable on Sustainable Biomaterials (RSB)

Established in 2007 at the Swiss Federal Institute of Technology (EPFL) as the “Roundtable on Sustainable Biofuels (RSB)”



- Grant Funded by the Packard Foundation
- Set up as a forum to discuss biofuels sustainability issues: Expert Groups on Environmental & Social Issues, GHG Accounting, indirect Land Use Change, etc...
- Set up a virtual membership comprised of 7 different “chambers” for global participation by NGOs and companies
- Held workshops throughout the world on key bioenergy sustainability topics
- Joined the ISEAL Alliance to follow codes of good practice in transparency and participation
- Expanded to all “Biomaterials”

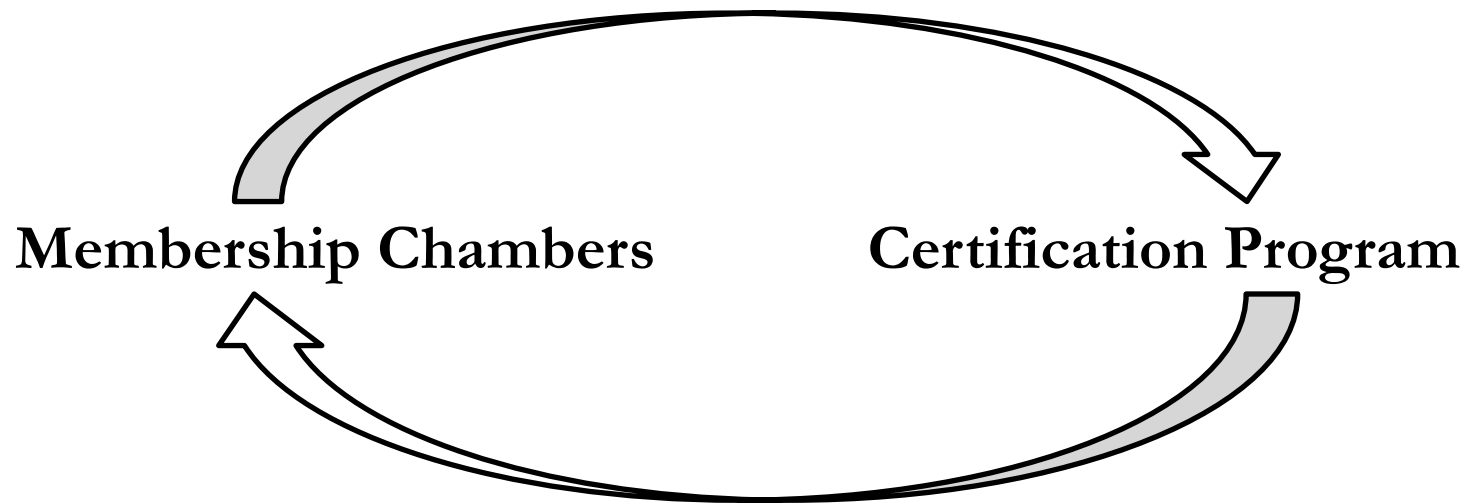


Diverse Participation of Different Organizations

1. Farmers and growers of biomass
2. Industrial biofuel/biomaterial producers
3. Retailers/blenders, the transportation industry, banks/investors
4. Human and Labor Rights Organizations & Trade Unions
5. Rural development & food security organizations
6. Environment or conservation organizations
7. Intergovernmental organizations (IGOs) & governments



Launch of Certification Program



Who is driving the sustainability dialogue?

Bioenergy sustainability is largely driven by public policy

- EU RED: GHG and Biodiversity Requirements – Must be Certified
- US RFS: GHG & Land Use Change Requirements
- California LCFS: GHG & Sustainability Reqs (Still in development)
- Others: Alberta RFS, British Columbia LCFS, German FQD etc...

Aviation Sector: Airlines need low carbon biofuels to meet ETS targets – priority on sustainability

Leading brand names increasingly require certified sustainable suppliers for food, feed, fiber and now biomaterials.



Understanding the drivers for certification and operating in distinct supply chains

- RSB materials certified to date
 - Carinata: Distinct farmer groups selling to one company
 - Camelina: Distinct farmer groups selling to one company
 - Jatropha: Individual (discrete) plantation
 - Sugarcane: Individual (discrete) plantations
 - Quick Coppicing Poplar: Individual (discrete) plantation
 - Various wastes & residues
- Drivers: EU Market Access & Demand from Aviation Sector

Advanced Biofuels – Risks and Opportunities

Advanced biofuels have unique sustainability risks, and characteristics that may create opportunities



Potential
Invasiveness



Biomass
Over-Removal



Common language
and definitions

Issues for Consideration

- How to deal with the commodity agriculture challenge?
 - *Is that less of a concern with cellulosic and novel feedstocks?*
- What are the appropriate drivers for sustainability?
 - *Policy?*
 - *Market driven?*
- How do supply chain certification and sustainable landscape design integrate?
 - *Is there a mechanism by which we can envision sustainable landscape design principles being integrated into sustainability certification? What would that look like?*

Thank you!

Roundtable on Sustainable Biomaterials

Matthew Rudolf

Director, Business Development, Americas

Matthew.Rudolf@rsb.org

www.rsb.org



*Full Member