



Workstream: *Impact Accounting — Advancing Recognition of Life Cycle GHG Benefits*

Group Leader: Sam Lehr, EVP of Policy

Timeframe: January 2027 – December 2027

Molecule Group convenes an international, cross-technology, and cross-stakeholder community of practice to address challenges to scaling the production and use of sustainable fuels, chemicals, and materials (SFCM). Our workstreams empower participants to collaborate on practical solutions to pressing issues, and to communicate industry priorities with the relevant policy, standards, and inter-governmental processes.

Within the broader Molecule Group platform, the Impact Accounting workstream seeks to ensure that the full life cycle GHG benefits of SFCM are accurately recognized wherever climate performance informs policy, procurement, investment, reporting, or market participation.

Issue and Scope

Life cycle assessment (LCA) is essential to evaluating the climate performance of sustainable technologies. Yet the benefits produced across the full life cycle of sustainable fuels, chemicals, and materials are not consistently represented across carbon accounting, procurement, policy, and market frameworks. Important upstream benefits may be excluded, separated from inventory results, or calculated differently across methodologies, weakening the demand signals needed to scale high-impact technologies.

The Impact Accounting workstream addresses issues in regulatory and sectoral accounting methods, LCA methodologies, procurement systems, international initiatives, and other frameworks that determine how the climate performance of sustainable technologies is recognized and valued. This includes monitoring and engaging in corporate GHG accounting and target-setting frameworks—including the GHG Protocol and the Science Based Targets initiative (SBTi).

Across these systems, differences in boundaries, allocation methods, data requirements, and treatment of upstream impacts can produce materially different outcomes for similar technologies. Molecule Group leads a coordinated international stakeholder process to clarify those differences, identify gaps, and advance approaches that preserve environmental integrity while enabling life cycle benefits to inform real-world decisions.

In 2027 Impact Accounting will examine life cycle issues including:

- Avoided methane emissions (e.g., from waste or energy systems)
- Bioenergy with carbon capture and storage (BECCS)
- Soil carbon sequestration
- Land use change (LUC) and regenerative agricultural practices
- Treatment of recycled carbon in fuels and materials systems
- Biogenic carbon stored in products and materials

Furthermore, the workstream's purview includes the accounting and policy conditions needed to support credible market-based procurement and chain-of-custody systems, including the documentation, transfer, and recognition of environmental attributes.

Building on the success of the 2026 Impact Accounting Framework, Impact Accounting will operate in 2027 as a broader, ongoing workstream. The Framework will remain a central asset, while the workstream continues engagement with relevant standards, and expands its activity in comparative analysis, cross-workstream implementation, and international collaboration.

Stakeholders

The workstream brings together an international community of stakeholders with different technological, geographic, and institutional perspectives, including:

1. Industry Participants

- Producers of sustainable fuels, chemicals, and materials across bio-based, hydrogen-based, and synthetic pathways
- Technology developers, project developers, midstream operators, and life cycle data providers
- Purchasers and end users in transportation, manufacturing, chemicals, materials, and adjacent sectors

2. Technical and Academic Experts

- Experts in LCA, GHG accounting, assurance, carbon integrity, and market design

3. Non-Governmental Organizations (NGOs)

- Environmental and market-integrity organizations

4. Standards and Framework Bodies

- Organizations involved in GHG Protocol, SBTi, LCA standards, assurance, and other relevant accounting or procurement systems

5. International Institutions and Public-Sector Observers

- Intergovernmental bodies, multilateral institutions, public agencies, and scientific advisory bodies relevant to life cycle accounting

Deliverables

The 2027 workstream will pursue four principal areas of activity, supported by an additional comparative white paper and a stakeholder-responsive workplan:

- **Voluntary Market Standards Advocacy Surrounding WRI/GHG Protocol, SBTi, and AMI**

Coordinate stakeholder participation in voluntary market standards processes, including issue analysis, consensus-building, coordinated comments, technical engagement with standard setters, and with Let Green Gas Count and other relevant initiatives. This work will seek credible recognition of life cycle benefits and market-based procurement within emerging guidance.

- **Promote, Maintain, and Update the Impact Accounting Framework**

Promote the Framework as a practical tool for recognizing life cycle benefits and revise it on an ongoing basis in response to developments under Actions and Market Instruments (AMI) and other standards processes, implementation experience, and stakeholder needs. The workstream will also assess opportunities to align the Framework with additional inventory accounting methodologies.

- **Global Life Cycle Accounting Comparison:** Develop a concise white paper comparing the major life cycle assessment methodologies and applied accounting frameworks used globally for sustainable fuels, chemicals, and materials. The paper will identify what each methodology includes and omits, explain material differences in the treatment of key life cycle impacts, and identify gaps that prevent consistent recognition of life cycle GHG benefits. It will serve as a practical resource for LCA users, help policymakers and standards bodies understand the implications of different methodological choices, and inform the continued development of Molecule Group's Impact Accounting work.

- **Co-Develop the Carbon Accounting Passport**
Provide Impact Accounting expertise to the Carbon Accounting Passport, a joint project across Molecule Group workstreams planned for launch in 2027. The workstream will help determine how relevant life cycle carbon information and supporting documentation can be represented in the Passport and used across different market and accounting contexts.
- **Increase Collaboration Between Impact Accounting and International Bodies**
Expand technical collaboration with the Clean Energy Ministerial's Future Fuels work and other relevant international bodies. Activities may include knowledge-sharing, participation in international dialogues, and collaboration on terminology and life cycle accounting approaches that affect SFCM.
- **Indicative 2027 Milestones**
 - **Q1 2027:** Confirm stakeholder priorities; determine work to be conducted on Impact Accounting Framework and annual standards-engagement; scope the global LCA comparison and Impact Accounting contribution to the Carbon Accounting Passport.
 - **Q2 – Q3 2027:** Draft the global LCA comparison; advance Framework promotion and maintenance; develop stakeholder positions and comments as relevant; and expand international technical collaboration.
 - **Q4 2027 and ongoing:** Publish and promote the global LCA comparison; update the Framework as warranted; support Carbon Accounting Passport development; and identify additional activities with stakeholders.

Process

The workstream will operate through a transparent, consensus-oriented, and stakeholder-responsive process designed to preserve credibility while allowing the agenda to evolve with standards developments and stakeholder priorities. Key elements include:

- **Working Group:**
An international group representing industry, technical experts, standards organizations, and civil society, selected to ensure geographic, technological, and organizational diversity.
- Participation in the Impact Accounting Workstream is invitation-only. Stakeholders will have structured opportunities to contribute to technical materials and common

positions and may propose additional activities that advance the workstream's purview.

- **Monthly Stakeholder Meetings:**

Structured, topic-driven virtual meetings led by Molecule Group and informed by workstream members.

- **Consensus Development and Review:**

Technical outputs and common positions will prioritize broad agreement, transparency, and environmental integrity. Wider review or public comment may be used where appropriate for major publications or Framework updates.

Funding

This workstream is funded through a sponsorship model. Contributions support facilitation of the international stakeholder process, technical drafting, standards engagement, collaboration, outreach, and publication.

Sponsorship Tiers

- **Workstream Leader: \$30,000**

Take a leadership role in guiding the workstream—help define priorities and deliverables, deepen stakeholder engagement, and shape outcomes:

- Anchor sponsor of workstream
- Actively participate in all workstream meetings
- Provides strategic guidance and participates in review of major deliverables
- Acknowledgment on public materials for workstream
- Seat on Molecule Group Executive Committee
 - Bi-monthly workstream discussion and status update
 - Provide feedback on 2027 Molecule Forum activities and workstreams
 - Acknowledgement as part of Executive Committee

- **Workstream Sponsor: \$10,000**

Provide financial support and actively participate in shaping the priorities and outcomes of the workstream:

- Enabling sponsor of workstream
- Actively participate in all workstream meetings
- Acknowledgment on public materials for workstream

Minimum Sponsorship Goal: \$200,000

Relationship to Broader Molecule Group Activities

Impact Accounting will operate as part of Molecule Group's broader international community of practice. The workstream will coordinate with Molecule Forum and International Affairs activities to connect technical work with international processes; with ILUC Reconsidered and Chemicals & Materials activities on overlapping methodological questions; and with other workstreams through development of the Carbon Accounting Passport.

This integrated structure allows stakeholders to advance the specific objectives of Impact Accounting while participating in a broader platform for sustainable fuels, chemicals, and materials.

This workstream is led by **Sam Lehr**, Molecule Group's **Executive Vice President of Policy**.