



Semiconductor  
Climate Consortium

# Innovating

## Towards A Sustainable Future



**Semiconductor  
Climate  
Consortium**



Semiconductor  
Climate Consortium

# Semiconductor Climate Consortium

Prospectus

November 2022

**SUSTAINABILITY**

CONNECT - COLLABORATE - INNOVATE - GROW - PROSPER



Semiconductor  
Climate Consortium

The Semiconductor Climate Consortium recognizes the challenge of climate change and works to speed industry value chain efforts to reduce greenhouse gas emissions in member company operations and in other sectors of our value-chain.

We believe that member companies, with our accumulated knowledge and innovative technology, working collaboratively will accelerate solutions to address industry climate challenges. Working together, we will address and solve issues no one company can do alone.

Do you Share this Mission and Vision?

**Join Us.**

# Why a Semiconductor Climate Consortium?

## Our Shared Values

While environment and social impact have become the priorities for many industries, individual businesses are realizing that industry level collaboration is necessary to drive change with speed and scalability.

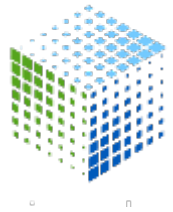
Members of the Semiconductor Climate Consortium recognize the challenge of climate change and the role our industry can play in reducing greenhouse gas emissions, in our own operations, our value chain, and other industries through the technologies we enable.

We believe member companies with accumulated knowledge and innovative technologies, working collaboratively, will accelerate the efforts toward solving environmental challenges which cannot be addressed by any company alone.

Members agree to support the Paris Agreement and related accords driving the 1.5°C pathway and are aligned on the need to drive climate progress within our industry.



## We welcome companies in the semiconductor ecosystem companies who will join us in making these commitments\*



### Support

Join the SCC and support the Paris Agreement and related accords driving the 1.5°C pathway and align on the need to drive climate progress within our industry.



### Collaboration

Align on common approaches to continuously improve and reduce greenhouse gas emissions in the semiconductor industry value chain



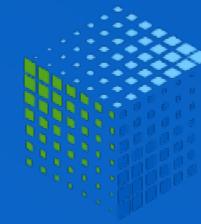
### Transparency

Publicly report progress and Scope 1, 2, & 3 GHG emissions annually according to the guidelines and principles in the GHG Protocol and agree to key underlying assumptions



### Ambition

Set near-term and long-term targets in accordance with best available science, with the aim to reach Net Zero greenhouse gas emissions per the GHG Protocol no later than 2050



# Value Proposition

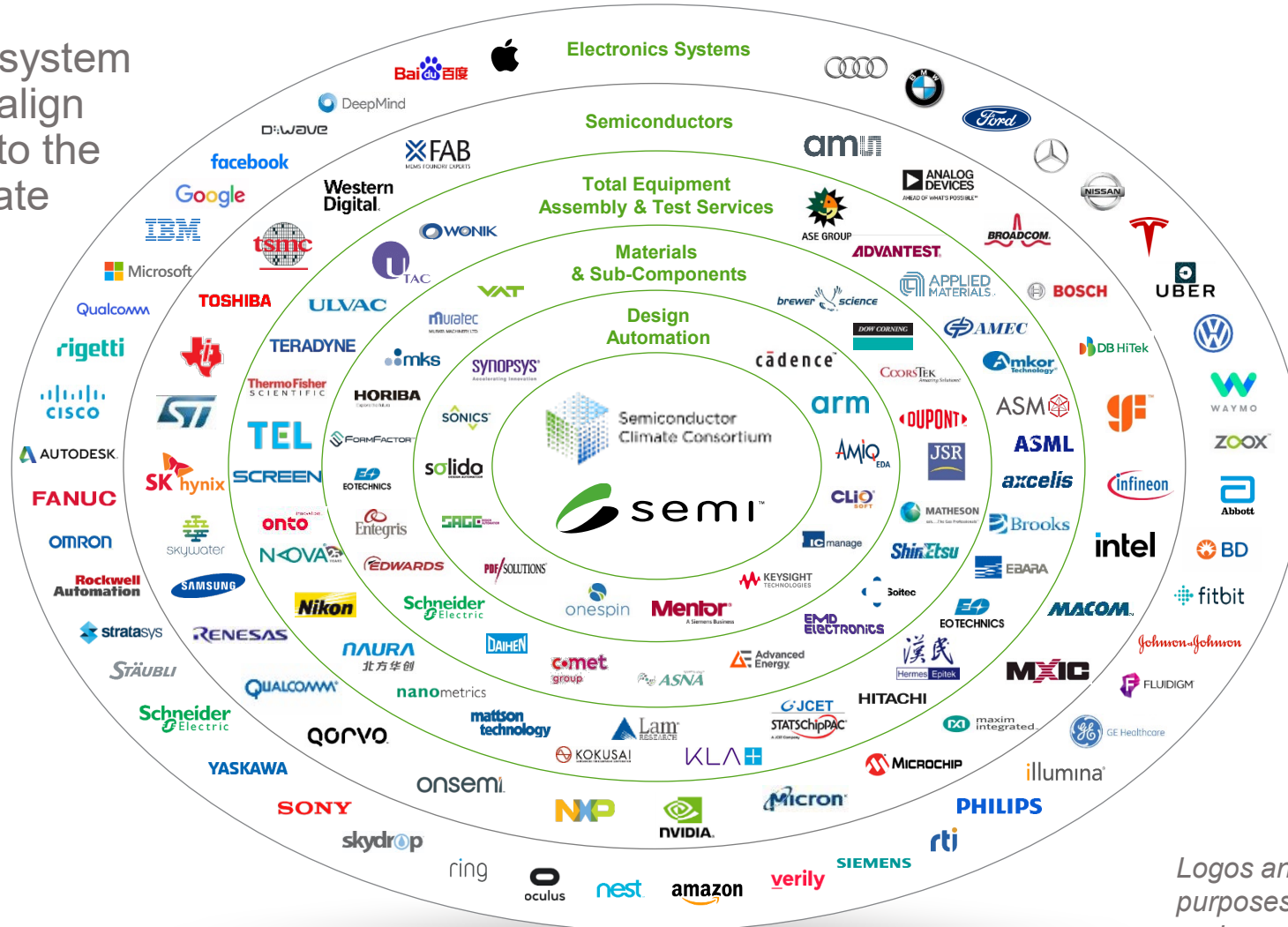
The Semiconductor Climate Consortium is the first global, ecosystem-wide effort to accelerate the semiconductor ecosystem's response to the challenge of climate change by facilitating our member's responses to reduce greenhouse gas emissions.

Members collaborate on dependencies for evaluating Scopes 1-3, help develop and get first access to tools to assist reporting and baselining and help build the case for change with our stakeholders. Modeled after the success of the Fashion Pact, we will improve our industry's climate response with a quantitative and qualitative approach.

We also support innovative ideas utilizing microelectronics to combat climate change and partner with outside organizations to raise awareness of opportunities and best-known methods across all industries.

# Members and non-members are invited from the entire semiconductor ecosystem

The entire SEMI ecosystem is invited to join and align sustainability efforts to the Semiconductor Climate Consortium



Logos and names used for illustrative purposes only. Usage does not signify endorsement from listed companies.

# Outreach and Engagement

The SCC is reaching out to many other organizations that share climate change ambitions and exploring engagement opportunities, including:

- **Semiconductor Industry Association (SIA)** – regular communication to complement each other's efforts
- **McKinsey & Co.** – SCC knowledge partner in formation and certain deliverables
- **SBTi** – The SBTi defines and promotes best practice in science-based target setting
  - We wish to include semiconductor value chain sector in their database
- **Climate Equity Consortium** – climate justice and climate equity initiatives
- **UNFCC** – The United Nations Framework Convention on Climate Change established an international environmental treaty to combat "dangerous human interference with the climate system", in part by stabilizing greenhouse gas concentrations in the atmosphere
- **COP27** – The SCC will announce its formation and highlight the steps the industry has pledged to support the Paris Agreement at COP27
- **WEF** – The World Economic Forum is an independent international organization committed to improving the state of the world by engaging business
- **WEI** – The Women's Environmental Institute is an environmental research, renewal and retreat center designed to create and share knowledge

# Benefits

- Collaborate on industry value chain goals on reducing GHG emissions
- Strengthen your Materiality assessment with industry associations and value chain
- Learn how other companies in our value chain are responding to the climate crisis
- Develop tools for the entire industry value chain
- Build a network of peers working on the same issues as you
- Surface your pain points, engage toward common solutions
- Increase your influence through a shared consortium voice

# Activities

## Climate Impact Tools

- Evaluation of climate related risks on semiconductor value chain
- Quantification of semiconductor sector impact
- Business analytics for better decision-making
- Energy Coalition

## Reporting Standards

- Provide simplified guidelines for Scope 1, 2, 3 reporting to encourage transparency in the value chain
- Provide market intelligence to stay aligned with disclosure requirements

## Technical Workstreams

- Demystify Scope 3 calculations & reports
- Identify infrastructure and process improvements (Scope 1 impacts)
- Support start-ups and innovation

## Outreach

- Active member engagement
- Support ESG journey in our value chain
- Partner with NGOs, and local and global Communities
- Partner with NGOs, local and global communities, promote climate equity

# Proposed Deliverables\*

## Fast-Start Activities

Launch Semiconductor Climate Consortium at COP27  
8 – 11 Nov, 2022

Create and use guidelines to standardize reporting  
for Scope 1, 2, 3 in the value chain

Establish Business Analytics for semiconductor  
carbon footprint and renewable energy roadmap in  
the value chain

Evaluation of climate related risks on semiconductor  
value chain

Outreach: Engage with UNFCCC, WEF, SBTi, WRI  
(and others) to raise their awareness of the  
semiconductor sector value chain. Evaluate  
opportunities to promote climate equity

Collective responses to regulatory requirements  
Sharing of available resources on incentives, taxes  
and disclosure

## Second Priority Activities

Access the Innovators: 1) provide a funnel for Clean  
Tech startups to members (S3); 2) Generate playbook  
for startups' proof of concept

Fund and guide the development of Market  
Intelligence and Resource for SCC members

Collaborate with SEMI Smart Manufacturing for  
sustainability solutions in manufacturing. Examples:  
1) Provide a platform for manufacturing efficiencies  
with real time decision making; or  
2) Expedite development and deployment of smart  
communication between equipment

Create a collection of best practices and solutions

Formalize industry responses to government policy  
groups & advocacy activities: regional clean energy  
access; regulatory policy mtgs; disclosure, carbon  
tax, incentives, taxonomy

## Third Priority Activities

Expand to include Energy Group to accelerate the  
accessibility for renewables, low-carbon energy,  
sharing of local resources, providers, developers in  
the value chain

Develop and deploy predictive Climate Risk  
assessments calculator and impact on  
semiconductor value chain

Deploy predictive analytics and reports against  
roadmap to 2030 & 2050

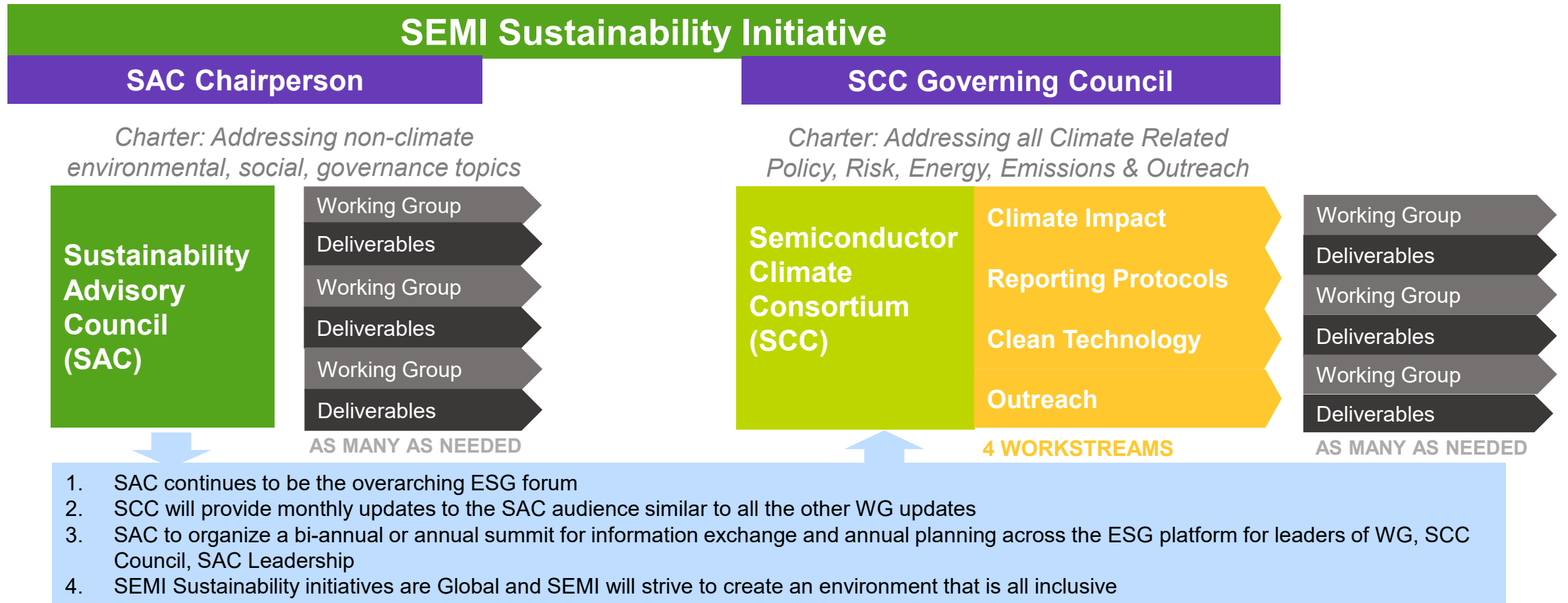
Annual reporting on overall semiconductor value  
chain climate performance

Reach beyond our sector to help solution  
sustainability issues in other industry

Support pre-competitive research for discovery and  
deployment of alternate gases for our current high  
GWP GHGs

\*Note: Actual objectives, deliverables, timelines and final priorities to be determined by the Consortium Leadership Level members in Q1 2023

# The SCC Operates Complementarily with the SEMI Sustainability Advisory Council (SAC)



# SCC Structure & Governance

## SEMI SCC Consortium Management

- Dedicated Consortium Manager
- WG & Project Support, Legal support mgmt.
- Communications and marketing
- G&A Support

## SCC Governing Council

- 7 members from different segments of the semiconductor ecosystem
- Annual nominations/elections from Leadership Level Members
- Governing Council chooses Chair & Co-Chair
- Defines Agenda, Objectives, Support for Working Groups

## Members

- Multiple POCs at any company
- Populate Working Groups
- Leadership level members nominate and vote for GC members
- Participant Level eligible to engage on Working Groups

### Climate Impact

### Reporting Protocols

### Clean Technology

### Outreach

4 WORKSTREAMS



AS MANY AS NEEDED

# Plan for Globally Inclusivity

Both SAC and SCC are committed to being inclusive of our global membership and value chain. We are working on a model to engage our respective membership. Depending on membership numbers in each, we envision a 2-step process for the Governing Council(s) to adopt in 2023:

## Step 1: 100% Sync Across the world

- Working Groups host 2 meetings with 1 bridging person
- Recorded viewing in other regions
- Odd months – Asia friendly; Even – US friendly; EU join friendly time zone

## Step 2: Global Governance; Local Management

- Setup 3 Continents (US, EU, Asia)
- Host Local WG meetings
- Reconvene monthly through SAC
- Manage through regional consortium managers
- Membership in other region meetings is optional



# SCC Proposed Working Groups

1. **Climate Consortium Formation** – Led by ASM International-John Golightly, SEMI-Mousumi Bhat  
(Origin of SCC Mission, Vision, Structure)
2. **Baselining, Ambition Setting and Road mapping** – Led by ASML-Marijn Vervoorn
3. **Value Chain GHG Scope 1 – Reporting Protocols** – Led by EMD-Mary Majors and Schneider Electric-Gregg Morasca
4. **Value Chain GHG Scope 2 – Reporting Protocols** – Led by and EMD-Mary Majors and Schneider Electric-Gregg Morasca
5. **GHG Scope 3** – Led by Intel-James Larsen; Applied Materials-Elena Kocherovsky
6. **Component Sustainability Scoring** – Led by Applied Materials-Ben Gross
7. **Scope 1 High GWP GHG** – Led by SEMI-Mousumi Bhat
8. **Semiconductor Sustainability Startups** – Led by Merck-Sarah Luppino
9. **Outreach/Inclusion** – Leader TBD – SCC WG partnership with SEMI to build engagements, partnerships, advocacy strategy

## Deliverables & Tasks

- The work is driven and led by Working Groups composed of Member Representatives
- SCC tasks are executed by a combination of staff, consultants, and company personnel, as appropriate

\*Note: Actual workstream assignments, objectives, deliverables, timelines and final priorities to be determined by the Consortium Leadership Level Members and SAC in Q1 2023

# Compare Membership Levels

## Leadership Level

- Inaugural year fees:
  - \$40,000 SEMI Members
  - \$50,000 Non-SEMI Members
- Fees reassessed each year based on work plan
- Eligible to vote for Governing Council members
- Eligible to serve on Governing Council
  - Determine objectives, deliverables and recommend spend
- Eligible to Chair Working Groups
- Priority Access to thought-leadership and lobbying engagements
- Eligible to use the SCC logo on marketing and branding materials

## Participant Level

- Inaugural year fees: \$15,000
  - Fees reassessed each year based on work plan
- Eligible to participate in Working Groups
  - Not eligible to Chair
- Eligible to use the SCC logo on marketing and branding materials

# Branding & Marketing

Semiconductor Climate Consortium members align with this important Sustainability effort, including authorized usage of the logo. Usage provides visually appealing recognition for your efforts to address impact on the world's climate and support for innovative approaches to reducing GHG and the impact of climate change.



Join the Semiconductor Climate Consortium today.  
Ask me how.



Email Signature Line – link to <https://www.semi.org/en/industry-groups/sustainability-climate-consortium>





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**Ready to Join?**

# Timeline through November - January



# How to Become a Member

1. Review the Benefits and Operations of the Semiconductor Climate Consortium as detailed in the [Agreement](#)
  - Hold meetings as necessary with SEMI Staff (or SCC Member) to discuss engagement
2. Membership Fees
  - \$40K for Year 1 **Leadership Level Membership** for full participation and voting rights
    - \$50K for Non-SEMI Members (or SEMI Members in arrears)
  - \$15K for Year 1 **Participant Level Membership** for participation in working groups
3. Sign & Return the [Agreement](#) to Aditi Gowda at [scc@semi.org](mailto:scc@semi.org)

## What Happens Next

- Establish primary contact and points of contact for Working Group activity
- Share on Social Media your support for the SCC (optional)



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Become a **Member** by returning a completed agreement.

[Download the Agreement](#)



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# THANK YOU

[SCC Website](#)

[SCC FAQ](#)

SUSTAINABILITY

# The SCC Grew Out of the SEMI Sustainability Initiative

## STEERING COMMITTEES

- Global Sustainability Advisory Council
- Europe
- Asia
- Americas

## ECOSYSTEM PARTNERS

- LCA Providers
- Investors
- Policy Stewards
- Other Sustainability Associations

## WORKING GROUPS

- Ambition Setting & Baselineing
- Materiality Assessment
- Industry Pact
- Scope 3 Emissions
- Component Sustainability Standards

## STAKEHOLDERS

- Chipmakers
- Fabless & EDA
- Equipment & Subsystems
- OSATs
- Chemical, Gases
- Wafers
- Research Institutes

### SUSTAINABILITY INITIATIVE MEMBERS



KNOWLEDGE PARTNER

McKinsey & Company