Welcome & Housekeeping

• Please use “Q&A” to ask questions of speakers – we will address questions after the prepared presentations.

• Please “Chat” to the host with any technical questions regarding the webinar.

• Slides will be provided afterward along with a recording of the webinar.
1. Welcome & Housekeeping

2. Introduction to GEMI – Mark Johnson, GEMI Chair

3. Introduction of the GEMI Scope 3 Project and today’s Speakers - Natalie Pryde, GEMI Scope 3 Project Director

4. Manufacture 2030 - Martin Chilcott, CEO, M2030

5. TMNA Supply Chain Sustainability - Kevin Butt, Sr. Environmental Sustainability Director, Toyota Motors North America

6. Closing Remarks
A leader in developing insights, networking, and creating collaborative sustainability solutions for business.
Collaborating for creative sustainability business solutions.

GEMI provides a forum for global corporate sustainability thought leaders to learn from each other, develop collaborative solutions, and engage with strategic partners to advance solutions to emerging environmental and sustainability challenges.

• Member driven.
• Corporate sustainability thought leaders.
• Industry leading companies.
• Multiple industry sectors.
Strategic Priorities for GEMI

**Sustainable Disruption Project**
Supporting corporate sustainability leaders in identifying, understanding and developing strategies to prepare for a range of anticipated and unknown future disruptions that may challenge short to mid-term business and sustainability goals, while creating new opportunities for leaders to position their organizations for greater resilience and success in the short and long-term.

**Closing the Loop on Industrial Plastics**
Bringing together key internal and external stakeholders to foster dialogue on contaminated plastic waste challenges and advance business driven solutions to achieve sustainable management of plastics across the life cycle, while creating value for stakeholders across the value chain.

**Scope 3: Scaling Solutions / Positive Impacts to Value Chain (and Beyond)**
Increasing transparency and understanding across industries of Scope 3 priorities, measurement and reporting methods, engagement strategies and challenges, and promoting collaborative cross-industry approaches to collectively scale meaningful solutions and drive positive impact across the value chain.

**Emerging Sustainability Leadership, Expanding the Chain of Leadership**
Providing a safe space for experienced and emerging corporate EH&S and Environmental Sustainability leaders to connect and learn from their peers, share experiences in managing and leading through ever increasing pressures facing sustainability leaders today, and develop capabilities required to lead sustainable business into the future.
Mission:
Provide a platform for corporate sustainability leaders to candidly discuss and work together to address challenges / opportunities in setting and achieving ambitious Scope 3 goals through identifying and promoting scalable processes and methodologies for leveraging best practice in driving CO2 reduction and partner engagement along the value chain.

Key Activities in 2021:
- Benchmark Scope 3 Survey
- Virtual Workshop Series
  - Workshop #1 – Commit & Measure
  - Workshop #2 – Manage & Improve
  - Workshop #3 – Engage & Innovate
- Scope 3 Forum
Workshop #1: Commit & Measure
• Commit:
  • Establish science-based Scope 3 targets aligned with stakeholder expectations.
  • Promote transparency and consistency relative to Scope 3 targets.

• Measure:
  • Identify and prioritize material Scope 3 categorical or total emissions data to establish a baseline.
  • Identify methodologies to leverage control and influence to promote Scope 3 emission measurement and accountability within the value chain.
  • Identify stakeholder communication strategies:
    • Articulate materiality
    • Create uniformity and consistency
    • Drive collaboration

Workshop #2: Manage & Improve
• Manage:
  • Gain clear forward visibility of likely future emissions.
  • Identify largest emission sources to focus on collaboration and/or emission-reduction opportunities.

• Improve:
  • Share methodologies to scale successful emission reduction opportunities.
  • Identify strategies to engage value chain:
    • Close gaps relative to reduction targets
    • Build action plans to support performance improvement
    • Identify opportunities for collaboration to scale efficiencies and/or technology adoption.

Workshop #3: Engage & Innovate
• Engage:
  • Engage value chain as partners and key contributors to overall business objectives.
  • Identify new opportunities to accelerate sustainability and improve business value.

• Innovate:
  • Identify and evaluate potential decarbonization pathways.
  • Explore business models that support application at scale of new low-carbon technologies:
    • Renewable fuels
    • Electrification
    • Low-carbon materials
Kevin Butt
Senior Director Environmental Sustainability,
Toyota Motor North America

Kevin Butt is the Senior Director of Environmental Sustainability for Toyota's North American Environmental Sustainability Programs. He is responsible for the development of Environmental Sustainability Programs and related Regulatory/Legislative development for all of Toyota's North American operations. Mr. Butt serves on several boards including the National Wildlife Habitat Council (Past Chair), Kentucky Fish and Wildlife Foundation, World Wildlife Fund National Council, North American Great Plains Advisory Board, Yellowstone Park’s Yellowstone Forever Board (Chairman), National Environmental Education Foundation (Chair) and the Pollinator Partnership Board, Supplier Partnership for the Environment (Chairman). Mr. Butt has a Bachelors of Science degree in Environmental Science from Georgetown College.

Martin Chilcott
Chairman and CEO, Manufacture 2030

Martin is an environmental and digital entrepreneur whose focus for over 20 years has been on disruptive business models that catalyze systemic change. Martin and his team launched Manufacture 2030 (M2030) with the sole purpose of accelerating carbon reduction at scale across manufacturing supply chains. Manufacture 2030 provides global corporations with the certainty they need to hit their Scope 3 emissions reduction targets, using its unique cloud-based platform and service to measure, manage and improve supplier performance. Clients include, amongst others: Toyota, Reckitt, Bayer, Roche, Interface, Asda and the Co-op and over 2,000 supplier sites in 50 countries around the world.
Martin Chilcott
CEO Manufacture2030.com
For most corporations, the majority of their emissions sit upstream in their supply chains.

Addressing Scope 3, therefore, represents their biggest opportunity to cut costs, reduce risks and future proof their business.
Contents

• M2030 overview
• The Challenge
• 5 Steps:
  • Engage
  • Measure
  • Manage
  • Improve
  • Report
• Automotive case study highlights
A subscription software platform and service to help corporations achieve their Scope 3 target with confidence.

Global Clients Include

M2030 is used in 50+ Countries

Our Unique Approach

Simple

Scalable

Credible
The Challenge

Customer often lacks:
• Internal alignment
• Visibility
• Control
• Appropriate relationships

Suppliers often lack:
• Permission to prioritise
• ‘Know-how’ & capacity
• Access to solutions
• Access to low cost capital
• Leverage with its own suppliers
5 Steps for addressing upstream Scope 3

1. Engage
   - Engage suppliers
   - Share objectives
   - Set-up & onboarding

2. Measure
   - Build supplier baseline via data capture incl.
     - Supplier Scope 1, 2 &
     - Upstream Scope 3
     - Water & Waste
     - CDP in/out transfer
     - Current projects
     - Site level data
   - Hotspot analysis
   - Segment suppliers
   - Gap to target analysis
   - Glidepath reporting
   - Incentivisation

3. Manage
   - Knowledge sharing
   - 450+ best practices
   - Expert partners
   - Supplier success team
   - Recommendations
   - Collaborative forums
   - Behaviour change

4. Improve
   - Dashboard reporting
   - Forward visibility
   - Performance analysis
Engage

At the beginning:
• Engage and align internally
• The ‘Ask’, commitment and senior leadership
• Communicate value for the supplier
• Create shared ownership
• Transparency and visibility goes both ways

Long-term:
• It’s a journey, move together,
• Build momentum and increase ambition over time
• Most of the answers lie within the supply chain
• Scale and collaboration can unlock most problems
Why are we driving forwards looking through the rear view mirror?
Measure

• Data for reporting is not data for reduction:
  • Suppliers’ Scope 1, 2 and 3
  • Action plans for reduction
  • Forward visibility: a Glidepath and Gap to target

• Collect site/company *and* product (LCA) data

• In manufacturing supply-chains you need site-level data

• Be practical, make it simple and build accuracy and detail over time
Manage

- Incentivise suppliers to prioritise emissions reduction:
  - Good and bad consequences (in time)
  - Communicate true cost of high carbon supply
  - Avoid mixed messages (educate your internal team)
  - Golden Rule (suppliers keep their savings)

- Use the data to:
  - Segment and target support to close Glidepath gap to target
  - Recognise and reward progress publicly

- Encourage co-opetition (benchmarks)
Improve

• Scope for improvement: 1% average plant versus 7% best in class*

• Most actions have short-term ROI

• Target support to close the Glidepath gap:
  • SMART recommendations (500+ database of actions)
  • Lean and clean play books
  • Knowledge sharing (webinars, treasure hunts etc.)

• Leverage the ‘know-how’ in the supply base

• Leveraging scale & insight to act collectively to provide access to:
  • Capital
  • Technologies and solutions (PPAs; H2; plant-based plastics)
  • Low carbon in-put material substitutes
  • Circular economy ecosystems

*Cambridge Univ. Institute for Manufacturing
Report

• Reduce the reporting burden (serve multiple customers)
• Align with common reporting standards and mechanisms (e.g. output to CDP)
• Provide forward guidance (as in financial reporting):
  • What’s the insight for the future?
  • What hypothesis are you testing?

*Cambridge Univ. Institute for Manufacturing
CASE STUDY: Automotive Supplier Program (US)

600 automotive facilities enrolled in 10 months

110K m³ in water savings projected by 2025

>$10M in savings identified in first 9 months

18,100 t in CO₂ savings realized for 2021 to date

4000+ best practice improvements adopted

5,600 tons in waste savings projected by 2023

(For select suppliers with waste initiatives)

“I would first like to say that working with Manufacture 2030 has been an honor. The Manufacture 2030 team have been an excellent avenue of continued encouragement for me, and the follow-up has been outstanding. Great, great people to work with and I hope I get the opportunity to continue to find more projects to be able to work with such an amazing organization. Thank You to each of you for all your support and commitment.”

Patrick Clifton, Kaizen Coordinator

“We have 12 sites so far using the M2030 platform to report sustainability data and have found it powerful, user friendly and easy to navigate. The quick adding of some simple monthly data points allows us to use the reporting tool to display progress towards targets, such as CO₂e reductions, with many plants already using the reporting metrics to support internal presentations.”

Mark Proulx, EHS Systems Manager

Hayashi

Telemplu

Adient
Start reducing your **Scope 3** carbon emissions

We’re committed to supporting your Scope 3 emissions reduction targets.

Martin Chilcott – Chair and CEO  
martinchilcott@manufacture2030.com
TMNA SUPPLY CHAIN SUSTAINABILITY

Kevin Butt, Sr. Director Environmental Sustainability
SUPPLIER ROLE IN ACHIEVING CHALLENGE 2050

Message from the Top

I believe that our mission is to provide goods and services that make people throughout the world happy, or, in other words, to “mass produce” happiness.

To achieve this, I believe it is necessary to cultivate Toyota people around the world who have a “you perspective,” and who can pray for and take action for the happiness of those other than themselves.

I view this as also being a part of earnestly engaging in the sustainable development goals, or SDGs, for which international society is aiming for, with the stance of “no one will be left behind.”

[Signature]
TMNA PURCHASING MESSAGE TO SUPPLIERS

Green Supplier Requirement
Issued April 1, 2021

CO₂ Reduction – 2% Annually
CO₂ Reporting – Begins July 2021
SUPPLIER ROLE IN ACHIEVING CHALLENGE 2050

• Challenge #2 requires zero carbon emissions by 2050 throughout the entire life cycle of vehicle production.

• This includes all Toyota suppliers, including parts and logistics providers.

• Support and collaboration between Toyota and suppliers is critical to accomplishing this goal.
7th ENVIRONMENTAL ACTION PLAN

- 7th EAP, established in 2020, sets forth a 5-year plan to make progress towards the ultimate goal of zero CO2 emissions by 2050.

- Challenge 2’s 2025 milestone is to reduce life cycle CO2 emissions by > 18% from FY14 levels.

- Toyota is taking action in each of the environmental focus areas to achieve the goals set forth in the 7th EAP.
KEY ACTIVITIES  October/2020 -> CURRENT

• Creation of Toyota Environmental Supply Chain Sustainability

• Strong collaboration with TMNA PSD (Purchasing Supplier Development)

• Expansion of CO2 reporting to all suppliers.
  (Some suppliers participated in a pilot from November 2020.)

• Toyota partnership with Manufacture2030 for CO2 reporting support.

• Launch of Green Supplier Requirements (effective 4/01/2021.)
Supply Chain Sustainability was created in October/2020 to enhance collaboration between Toyota & Suppliers to achieve Challenge 2 of Challenge 2050.

SCS team also aims to provide resources to support Suppliers’ environmental sustainability goals.
Updates to Green Purchasing Guidelines

✓ “Green Purchasing Guidelines” became “Green Supplier Requirements (GSR)”

✓ GSR is posted on toyotasupplier.com

✓ GSR is currently incorporated into Toyota’s Terms & Conditions for all suppliers.
INITIAL OPPORTUNITIES IDENTIFIED

- Over 130,000,000 kWh of energy savings
- Approximately 90,000 m³ of water savings
- Over 3,500,000 kg of waste savings
- 35k metric tons of carbon savings
- ~ $7 million USD savings identified
SUPPLY CHAIN – CO2 EMISSION & ENERGY RESOURCES

• **Electricity (Standard)** accounts for 41% of energy consumption but 60% of carbon emission. One of the reason is due to the large carbon emission factor of electricity(Standard)

• Just 1% of total energy consumption globally is from renewable sources

• Less than 11% of facilities (22 in year 2019) use renewable energy
### CO2 EMISSIONS BY COMMODITY TYPE (SAMPLE)

<table>
<thead>
<tr>
<th>Supplier</th>
<th>Category</th>
<th>2020</th>
<th>2019</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Casting, Body functional</td>
<td>117,185</td>
<td>126,307</td>
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<td>Kaoka</td>
<td>Casting</td>
<td>59,271</td>
<td>65,710</td>
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<td></td>
<td>Electrical, Body functional, HV</td>
<td>49,676</td>
<td>51,441</td>
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<td></td>
<td>T/M</td>
<td>43,042</td>
<td>43,546</td>
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<tr>
<td></td>
<td>Tire, Rubber</td>
<td>39,306</td>
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<tr>
<td></td>
<td>Wheel</td>
<td>36,622</td>
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<tr>
<td></td>
<td>Stamping(Welding)</td>
<td>36,543</td>
<td>41,144</td>
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<td></td>
<td>Body functional</td>
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<td>Body functional</td>
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<td>Cases</td>
<td>Tire</td>
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<td>Forging</td>
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<td>Chassis</td>
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<td>Engine functional</td>
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<td>Others</td>
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<td>Stamping(Welding)</td>
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<tr>
<td>suppliers</td>
<td></td>
<td>1,100,723</td>
<td>1,187,104</td>
</tr>
</tbody>
</table>

TOP 20 have 65% share

Casting, resin, tire production are very energy intensive operations based on data reported.
IMPROVEMENT ACTIVITIES(ENERGY)

The most popular Energy actions:
✓ Ensure you have a program of compressed air leak detection and remediation
✓ Replace inefficient lighting with LED
✓ Adjust compressor sequencing
✓ Confirm that air compressor controls are working correctly

Projects identified with the highest energy savings:
❖ Identify energy sources, uses and data
❖ Switch electricity source to green energy
❖ Procure Renewable Energy
❖ Energy Saving Forum
TOYOTA SUPPLIER WATER IMPROVEMENT ACTIVITIES

KEY WATER ACTIVITIES
✓ Achieve cost reduction savings by re-structuring water charges (check periodically)
✓ Appoint a water efficiency champion(s)
✓ Carry out preventative maintenance on the cleaning system
✓ Conduct a water assessment to identify current water uses and costs

Projects identified with the highest water savings:
❖ Conduct a water assessment to identify current water uses and costs
❖ Initiate priority actions and develop performance controls
❖ Evaluate opportunities for water savings
QUESTIONS?
Final Q & A and Closing Remarks
We would love to hear from you!

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Steve Hellem, shellem@navista.net