Driving Decarbonization through Emissions Transparency:

Stories from the Steel and Aluminum Industries

April 17, 2024

Agenda

Item	Facilitator/Speaker	Time
Welcome and introduction	Hao Wu and Nicole Labutong	5 min
Presentation and panel discussion	Wenjuan Liu and invited speakers	35 min
Q&A	Hao Wu	10 min
Next phase of work and wrap-up	Nicole Labutong	10min

Speakers

Nicole Labutong
RMI Principal

Hao Wu
RMI Manager

Wenjuan Liu
RMI Manager

Fernando Antonanzas
Alcoa LCA Manager

Rémi Julio
Hydro Sustainability & LCA Engineer

Samuel Berrigan
ARUP Façade Engineer

Moe Benmbarek
Oldcastle Sr Engineer

Nick Coleman
Tata Steel Principal Sustainability Specialist

PRODUCT LEVEL GHG ACCOUNTING

Material specific metrics for decarbonization

TECHNOLOGY ENABLEMENT

Data formats provide standardization

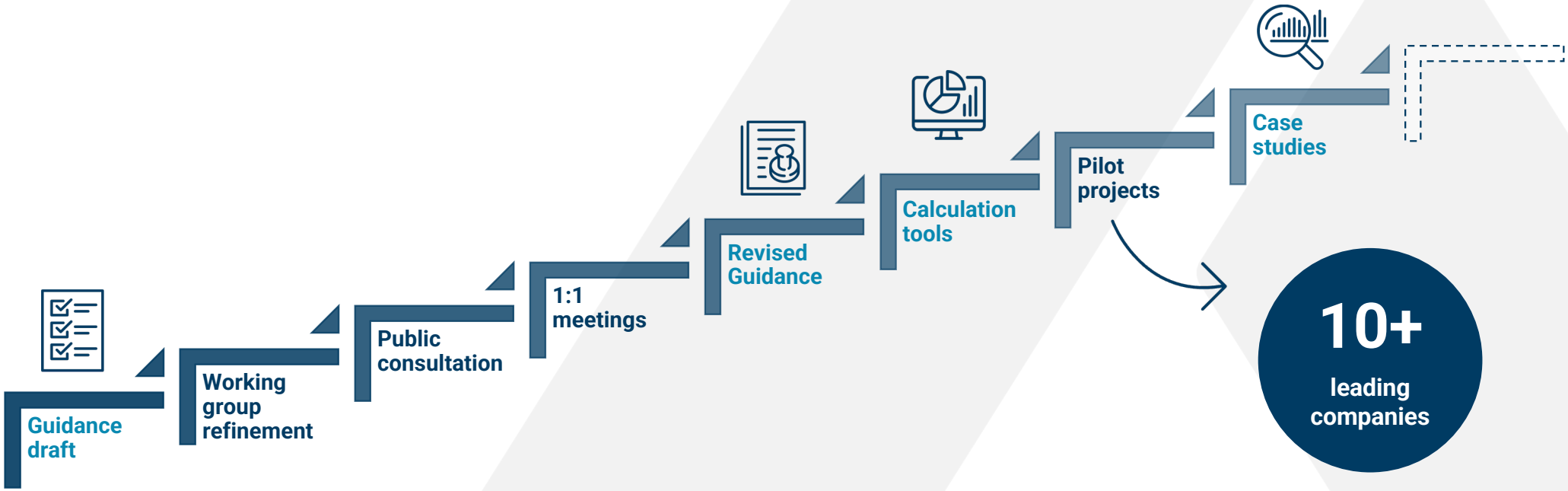
INDUSTRY ENGAGEMENT

Collaboration to accelerate scalability

RMI'S EMISSIONS TRANSPARENCY WORK

Solutions developed with industry stakeholders

100+ organizations engaged through working groups, 1:1 meetings, public consultations, and pilots



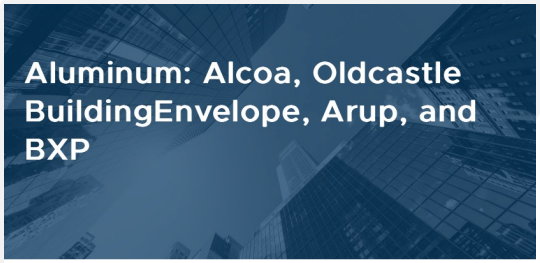
Pilot outcomes

Driving steel and aluminum decarbonization through emissions transparency

Cross-cutting outcomes

Enhancing decarbonization strategies through emissions transparency, consistency, comparability and collaboration

Comparable and transparent climate data metrics drive potential changes in the buyer's supplier engagement for more responsible sourcing practices.



A collaborative model between an aluminum producer, curtain wall manufacturer, building façade designer, and property manager to enhance emissions transparency across the buildings value chain.

Clearly defined boundaries and calculation rules enables emissions comparability among steel products.

Calculating and transferring product-level data, and exploring how the reported data could be utilized to facilitate procurement of low GHG emissions steel.

A standardized data format facilitates the uniform presentation of product climate data throughout the supply chain, streamlining the reporting process for suppliers and simplifying data collection for buyers.

Case studies show impact of data-driven action

Pilots demonstrated that improving data transparency can enable decarbonization action

ALUMINUM: AUTOMOTIVE

- **Integrating sectoral targeted metrics** in supplier survey could improve responsible sourcing practices
- **Standardized emissions data exchange** enabled integration and scale benefits.

ALUMINUM: BUILDINGS

- **Standardized calculation tools** can reduce the emissions calculation and reporting burden for aluminum companies.
- Improved **embodied carbon specifications** for façade systems inform the procurement of low-carbon aluminum.

STEEL: AUTOMOTIVE

- Product level data will inform participant's **internal carbon pricing** system
- Product-level data will be critical establishing the scope 3 inventory for participant to **set 1.5 C aligned reduction targets**

STEEL: AUTOMOTIVE

- **Standardization and harmonization of assessment methodologies and data exchange** could support corporate in supply chain emissions reduction.
- The additional metrics could enhance transparency regarding **suppliers' abatement actions**, thereby improving procurement practices.

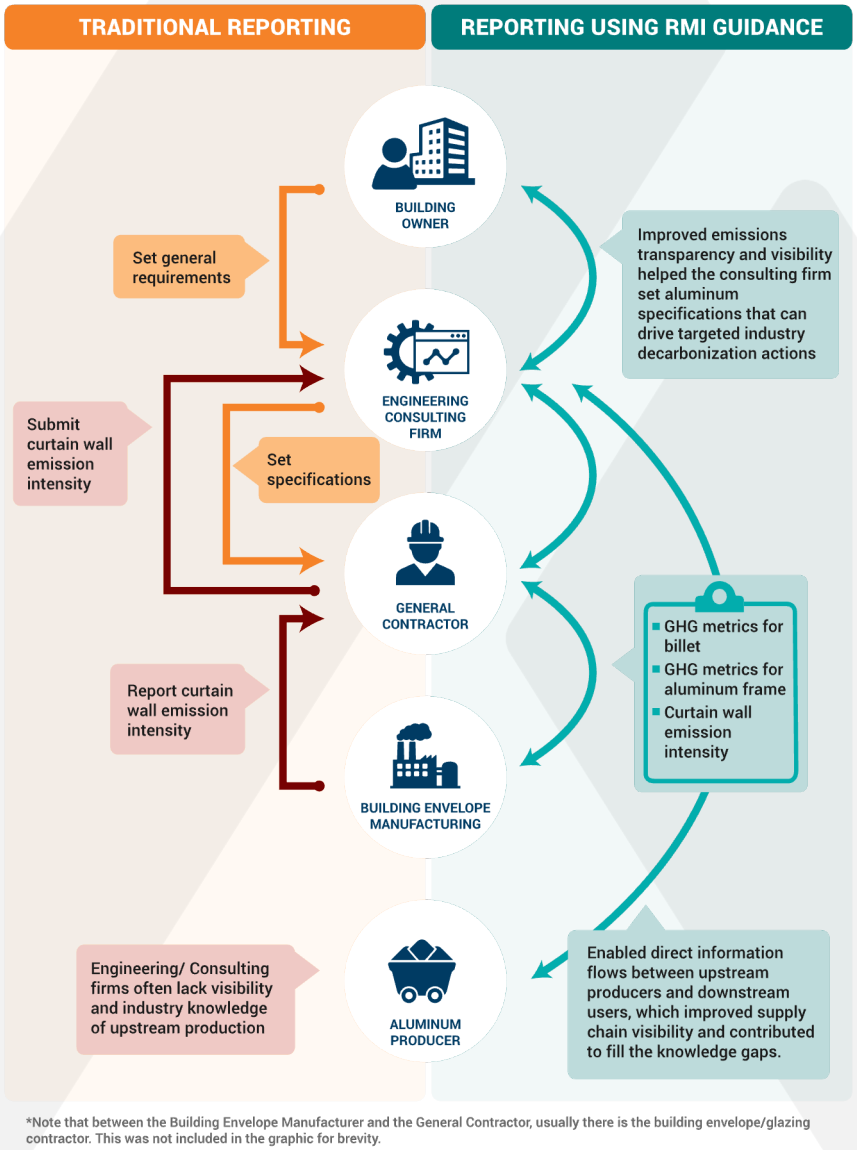
Pilots were conducted between August and December 2023.

Aluminum pilot

Alcoa - Oldcastle - Arup - BXP

RMI Aluminum Guidance was used to:

- **Enhance collaboration** on emissions reporting and data exchange across the buildings value chain
- **Reduce** emissions **calculation burden**
- **Develop specifications** that drive procurement of low carbon aluminum



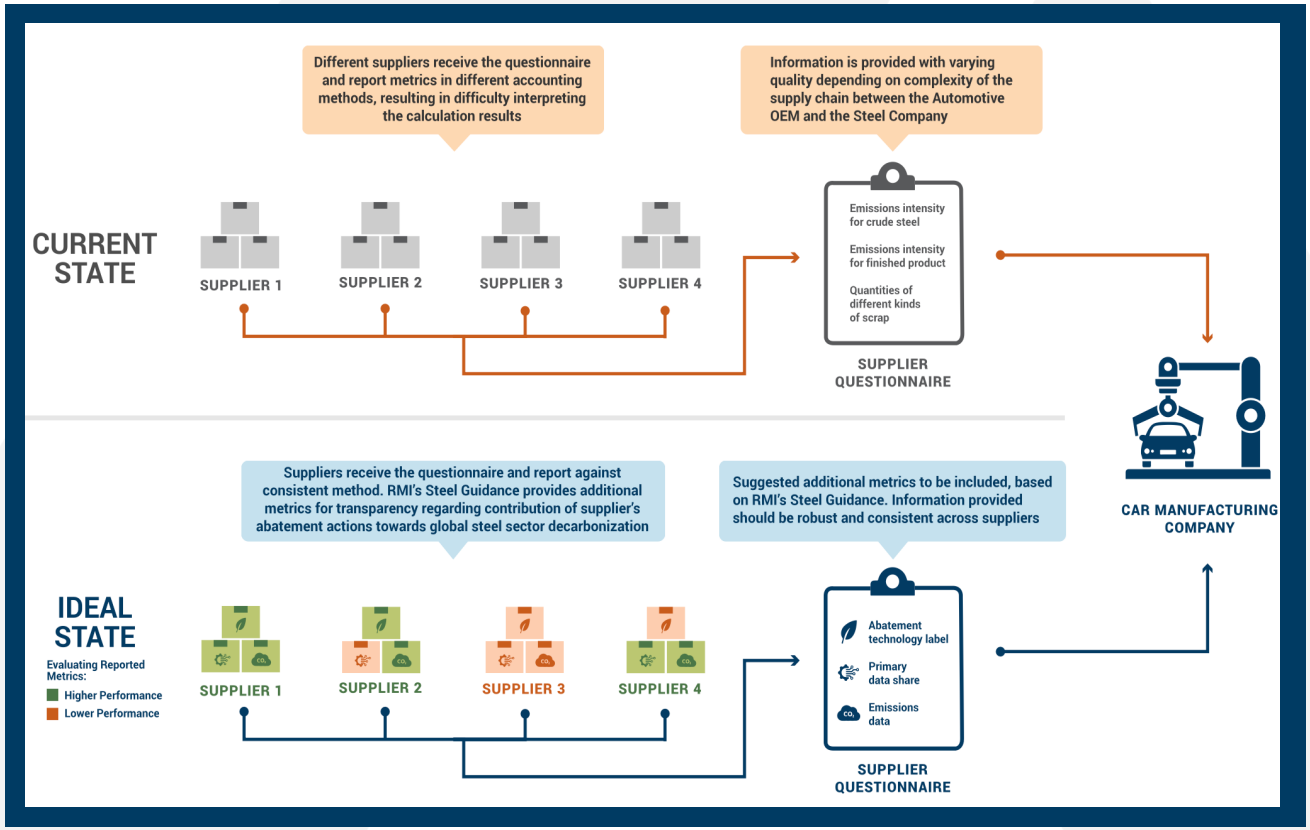
*Note that between the Building Envelope Manufacturer and the General Contractor, usually there is the building envelope/glazing contractor. This was not included in the graphic for brevity.

Steel pilot

Tata Steel UK and Jaguar Land Rover

RMI Steel Guidance was used to:

- Test **product-level GHG data** reporting
- Strengthen **shared understanding** of reporting processes and challenges
- Improve supplier data collection for **sustainable procurement** practices



25 minutes

Panel Discussion

Moderator:

- Wenjuan Liu, Manager, RMI

Speakers:

- Fernando Antonanzas, *Life Cycle Assessment Manager*, Alcoa
- Moe Benmbarek, *Sr Engineer*, Oldcastle
- Nick Coleman, *Principal Sustainability Specialist*, Tata Steel
- Rémi Julio, *Sustainability & LCA Engineer*, Hydro
- Samuel Berrigan, *Façade Engineer*, ARUP


Q&A

The road ahead

The challenges that remain, and our work to address them

Challenges remain in translating disclosure into action

Incentive

Stronger incentives required for suppliers to take reduction actions

Capacity

Suppliers lack necessary knowledge and capacity to calculate emissions

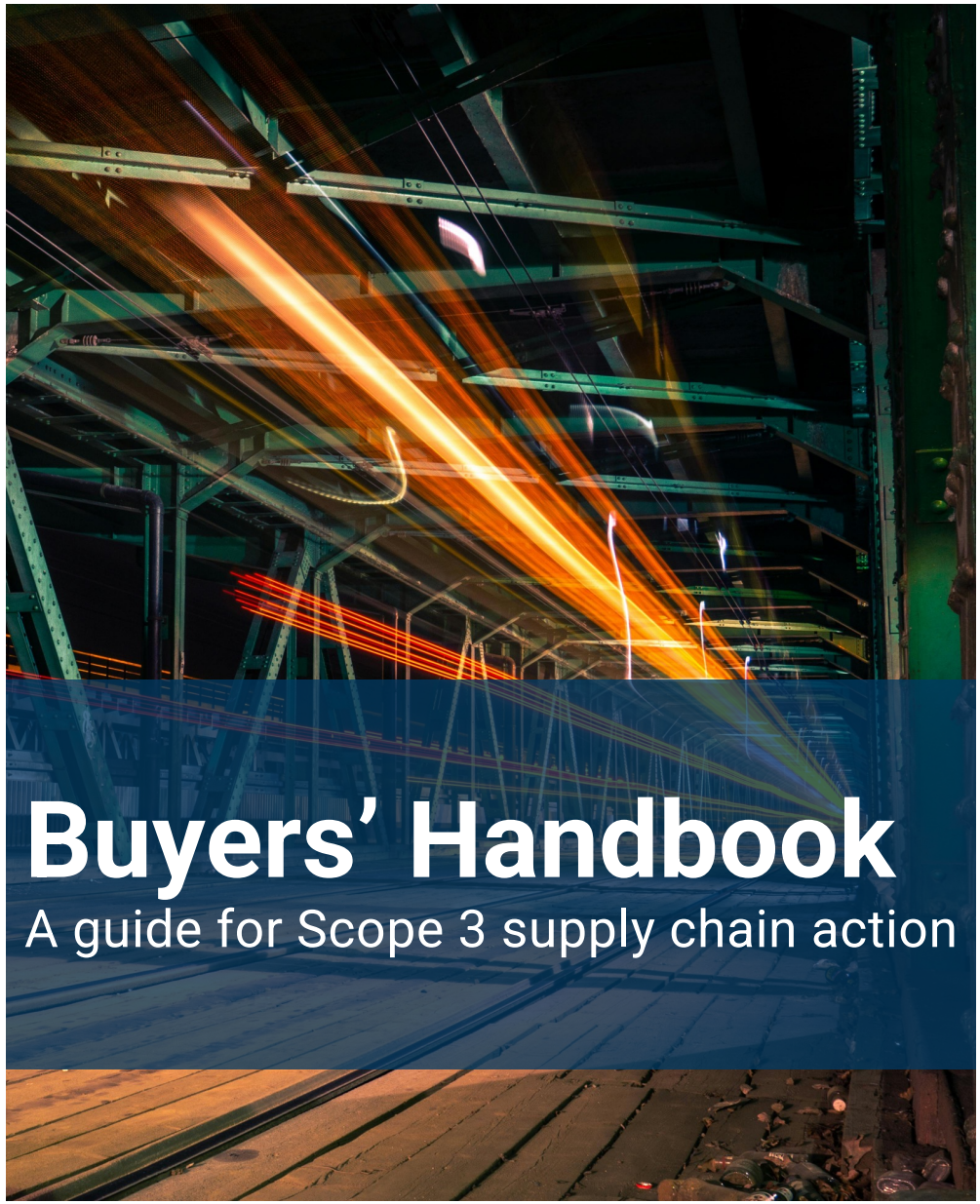
Knowledge gaps remain in how to:

- Improve supplier data quality
- Interpret uncertainty in data

- Build internal momentum and buy-in for impactful projects

- Effectively engage suppliers
- Implement reduction actions

- Track supplier progress
- Quantify emissions impacts and costs



Objective

Empower downstream corporates with actionable guidance to address emissions hotspots in their supply chain through better product-level data, focusing on the following areas:

- **Improving GHG footprinting and target setting** using relevant, supplier-specific data
- **Implementing GHG reduction levers** that align with corporate needs and strategies
- Having a clear path **built internally for stepping up for more impactful actions**

Supplier Training

Building emissions reporting capacity

Objective

Strengthen the reporting capabilities of suppliers by enabling effective emissions measurement and reporting through upskilling organizations with little to no emissions reporting capability, thereby:

- Improving the availability of **supplier-specific emissions data**
- Providing data that provides insight to material decarbonization **“hot-spots”**
- Reducing burden for buyers needing to **train suppliers**

Our collaborative model

How to get involved and support RMI's work on supply chain decarbonization

Material Development

Initial survey and/or engagement to provide feedback

Implementation

Test and develop use cases for Buyers' Handbook elements

Supplier Engagement

Invite or require suppliers to participate in training

Contact us

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Your input is highly valued!

Buyers survey

Suppliers survey