WHO POWERS LEAP

What makes LEAP a landmark initiative is the depth of knowledge, the extensive experience, and the analytical capabilities of its research partners. Representing strategic perspectives across the spectrum of notions around sustainability, partners pool their distinct expertise to meet the challenges at hand. They augment their insights in sustainability with the experiences of other consortium members to undertake the complex environmental analysis that will advance your own green practices and the environmental practices of the field.

- The Center for Transportation & Logistics (CTL) resides within MIT’s Engineering Systems Division and tackles issues around supply chain management and logistics. Through its work in carbon-efficient supply chains, CTL has developed cases involving multiple partners in long and complex supply chains who are facing challenges around measurement, strategy and decision-making, and labeling and reporting.
- The Materials Systems Laboratory (MSL) has been studying the strategic implications of materials and materials processing choices for almost three decades, developing cutting-edge analytical tools for evaluation of alternative product and process designs grounded in engineering, economic and environmental fundamentals. MSL resides within the MIT School of Engineering, maintaining affiliations with the Department of Materials Science and Engineering and the Engineering Systems Division.

Other research partners will be added as the needs of the consortium dictate.

APPENDIX 1 - RESEARCH APPROACH

Figure 1 depicts the many elements of a product life cycle that may be incorporated into an environmental footprint. Understanding the drivers of environmental impact across a complex supply network requires expertise in the technologies for manufacture, the burden of logistics, the range of product disposal pathways, and the development of partnerships among stakeholders in these diverse arenas. LEAP will build upon the interests of member companies around a particular set of common research questions related environmental performance, tackling key industrial and academic challenges while enabling firms to increase the sustainability of their products and processes. Focal issues will include comprehensive life cycle analyses leading to detailed insight into the environmental efficiency of supply chains. Further areas of investigation could include the impacts of recycling and recyclability, as well as the challenges presented by resource scarcity. Each participating company will be provided with firm-specific case analyses and input on sustainability strategy, while the consortium will develop generic industry cases to contribute to the development of a dynamic and accessible database. Additionally, the consortium will develop case studies quantifying the implications, limitations, and challenges of the wide range of environmental analysis protocols being developed around the world. Developing and performing these case studies will involve close collaboration with participating firms, as well as data input from industry associations.

The partnership’s work will broadly encompass all of these elements, but detailed work will be conducted in three focus areas: products, partners, and packaging. Figure 2 highlights some of the key topics in each focus area. The group will also explore questions around methodologies, metrics, and uncertainty and variation. The primary research findings within each focus area will be shared among the partners within the focus area, with the exception of firm-specific case studies. Participating firms will be invited to attend annual meetings where the outcomes of research activities will be shared and common challenges will be discussed.
PUSH HAS COME TO SHOVE

CHALLENGE: Your company is under intense pressure on all fronts to shrink its environmental footprint. You need to make strategic economic decisions that improve environmental performance across the supply chain. And you need to make those decisions now.

SOLUTION: To help you understand and evaluate your options, the MIT Center for Transportation & Logistics (CTL) and the Material Systems Laboratory (MSL) are forming a dynamic consortium of leading companies called Global LEAP—Leaders in Environmental Assessment and Performance. LEAP brings its members together with top environmental and supply chain experts to address specific performance issues and to plot solutions that strengthen company performance and environmental benefit.

THE CHALLENGE THAT IS TESTING COMPANIES WORLDWIDE

Like most 21st-century companies, your business is facing demands from consumers, regulators, and supply chain partners to minimize its environmental impact. But going green isn’t as easy as it used to be. Not long ago, you could introduce a few recycling bins and you were thought to be doing your part.

“Being green” has become an increasingly complex and subtle objective, reflecting society’s evolving understanding of (and expectations) of the firm’s role in sustainability. The standards are continually changing. The complexities are intensifying. The stakes are getting higher.

Boards are demanding aggressive action. The pressure to reduce your carbon footprint is backed by the threat of consequences to your bottom line and your brand equity.

THE GLOBAL LEAP SOLUTION

The LEAP consortium will help you maximize the benefits of your company’s sustainability strategies. By combining the expertise of our pioneering Carbon Efficient Supply Chains Project with a deep understanding of Life-Cycle-Assessment methodologies, LEAP offers an unprecedented opportunity for fact-driven and solution-oriented analyses of your products and supply chains. It gives you the tools and information you need to measure your total environmental footprint, evaluate trade-offs, and shape a sustainable action plan.

As a member of the MIT Global LEAP consortium, you will be strategically positioned at the intersection of research in technology, business, and sustainability practices—and you will be among the first in the world to benefit from the insights and innovations emerging from that research. Working closely with MIT CTL, MIT MSL, and its research partners, you will:

• Look beyond the walls of your company—far upstream or downstream—for strategic ways to reduce your impact.
• Evaluate trade-offs along multiple dimensions, including greenhouse gas emissions, resource consumption, and waste generation.
• Align your goals for improvement with sound economic performance so that your green efforts strengthen the organization.
• Comply with local regulations while elevating your business as an environmental leader in the marketplace.

HOW LEAP WORKS

Global LEAP focuses on several critical success factors:

• Developing key management tools for assessing, controlling, and communicating your environmental impact.
• Integrating the knowledge of many of the world’s top experts in supply chains, sustainability, and corporate strategy.
• Ranking product and supply chain strategies in order of their effectiveness at reducing long-term environmental impacts.
• Exploring tradeoffs among different measures of environmental performance.
• Identifying the greatest opportunities for environmental improvement across your company, sector, and supply chain.
• Evaluating how emerging technologies—processes or materials—will impact the environmental performance of your firm.
• Indicating how you can benchmark performance and develop efficient and effective environmental standards.
• Illuminating how you can communicate environmental information to consumers, stakeholders, and supply chain partners.

BENEFIT #1
Explore leading-edge methods for evaluating the environmental footprint of your business, supply chain, and products.

BENEFIT #2
Leverage MIT’s global leadership in developing economically viable environmental solutions.

BENEFIT #3
Help shape the LEAP research agenda and determine the direction of case study development.

BENEFIT #4
Get exclusive access to publications, research reports—and dedicated research staff.

BENEFIT #5
Participate in consortium activities, such as the annual sustainability conference, members-only roundtables, and quarterly webinars.

A MORE POWERFUL, MORE VIABLE STRATEGY

Global companies have been channeling vast resources into sustainability research. But is it a burden they can effectively shoulder? LEAP is a vehicle for organizations—multinationals and startups alike—to leverage MIT’s frontline knowledge in this area, arguably the most comprehensive and actionable knowledge on the viability of sustainable practices in the world today.

Investigate common issues among firms and along supply chains while preserving your company’s distinct competitive advantage.

BENEFIT #6
Investigate common issues and strategies among firms and along supply chains while preserving your company’s distinct competitive advantage.

BENEFIT #7
Enhance brand reputation and become a marketplace role model in changing consumer behavior.

BENEFIT #8
Take part in shared and standardized data collection with companies that rely on the same materials, processes, or suppliers.

BENEFIT #9
Access up-to-date carbon footprint and environmental databases for key materials, products, operations, and logistics activities.

BENEFIT #10
Join groundbreaking efforts to adapt existing lifecycle methodologies that drive environmental improvement.