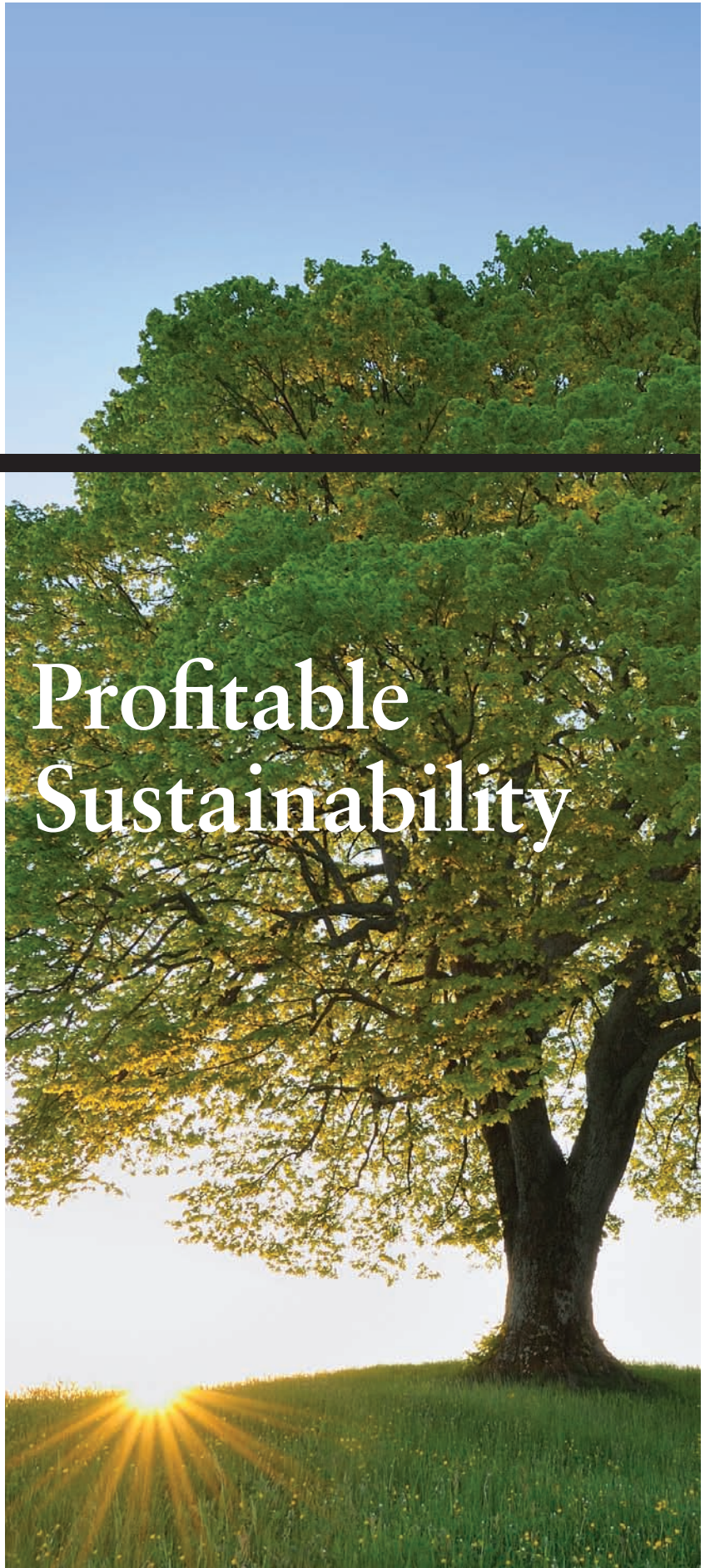


booz&co.

LOW CARBON AND
SUSTAINABILITY
SERVICE OFFERINGS

Profitable
Sustainability



Our Approach: Profitable and Practical

Balancing economic growth with environmental concerns is proving to be one of the greatest challenges of the 21st century. Organizations are facing increasing calls to be environmentally responsible while remaining accountable to their stakeholders.

Profitable, practical
low carbon &
sustainability initiatives

**create
value**

and address environmental
challenges.

Practical barriers hinder the transformation to a more sustainable world. This is true for companies operating under short term commercial metrics and for the public sector where community and business interests must be carefully balanced with progress. Booz & Company's approach to low carbon & sustainability is therefore a simple and pragmatic one. We focus on helping organizations with low carbon & sustainability initiatives that are profitable, practical and tangible.

In over 200 low carbon & sustainability projects in the last three years we have demonstrated our ability to unlock value for leading public and private sector clients around the world while contributing to a better environment.

Our ability to deliver tangible value resides in four areas: cost & footprint management, business model enhancement, growth & innovation, as well as regulatory change & new industry requirements.

Booz & Company, through these capabilities and service offerings, can assist our clients to profitably improve their sustainability, or to sustainably improve their profitability.

These four capability areas can address specific client needs, or can be combined to create a self-funding sustainability strategy to transform an organization from laggard to leader.



1. Cost and Footprint Management

Reducing energy use/greenhouse gas emissions, improving efficiency, eliminating waste and reducing resource usage along industry value chains improves the environmental and financial performance of businesses, products and services. Innovative new approaches are emerging which stretch the traditional boundaries of recycling, driving further cost savings.

2. Business Model Enhancement

Existing businesses can increase revenues by adjusting their focus to respond to and anticipate 'greener' consumer/customer preferences and a changing environment. They can do this by managing their sourcing and market positioning, while better serving their customers and incorporating future sustainability issues into their strategies.

3. Growth and Innovation

The discontinuity of a more sustainable, lower carbon world presents new business opportunities for those who can anticipate and respond quickly to changes, be they the emergence of clean technologies, a revaluing of externalities, or exciting new markets.

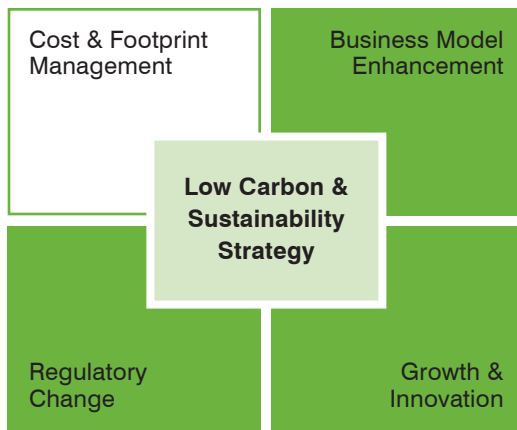
4. Regulatory Change and New Industry Requirements

Well-developed new policies, imposed by governments or key industry players, can directly drive environmental improvement and also present opportunities for early movers to seize competitive advantage.

1.

Cost and Footprint Management

In an environmentally-conscious world that focuses on short-term profit, the savings potential of less wasteful approaches is increasingly being recognized.



Booz & Company’s service offerings help organizations improve their ‘footprint’ be it focused on emissions, energy usage or resource usage, including:

Lean Production—Lean production has long proven its financial benefits. It is now re-emerging for its ability to reduce waste and other environmental impacts. Of course this also brings further cost savings.

Energy and Emissions Management—We consistently find opportunities to profitably reduce clients’ energy usage and emissions. In addition, climate change concerns are creating a price for greenhouse gas emissions, enabling organizations to profit further from new rounds of energy and emissions reduction projects.

Low Carbon Supply Chains—Optimizing supply chains for both costs and environmental footprint can create substantial benefits for companies and customers—as well as improving supplier practices.

Closing the Loop—Leading companies worldwide recognize the potential of recycling and remanufacturing to reduce their costs and environmental impacts. They are creating new operating models with strong customer appeal—giving them additional competitive advantage.

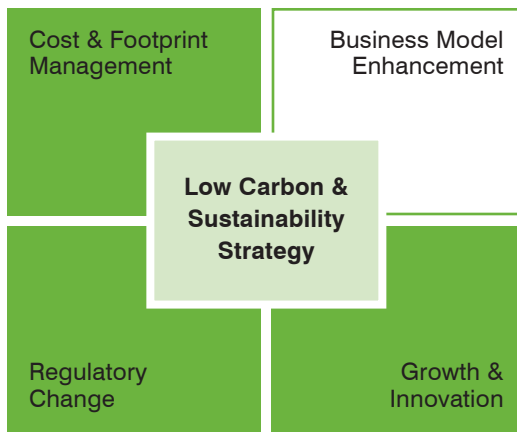
RECENT ENGAGEMENTS

CLIENT	PROJECT	OUTCOME
NATIONAL OIL COMPANY	To improve their environmental performance, this client engaged Booz & Company to develop a Greenhouse Gas Emissions Management Strategy	Developed an integrated emissions management strategy to profitably reduce GHG emissions by over 43% by: <ul style="list-style-type: none"> - Improving energy efficiency - Capturing flared and vented gas for sale - Using a GHG waste stream as raw material for a value-added chemical product - Monetizing GHG emission savings through the Clean Development Mechanism
GLOBAL CHEMICAL COMPANY	Transition a European chemicals manufacturing site to CO ₂ neutral to meet a company-targeted 20% reduction in carbon emissions by 2020 and respond to sharp increases in gas and electricity prices.	Identified over 30 emissions reduction options, including installing a gasification plant using garbage and old tires, a woodchip boiler, bio-fuel and wind energy, and automating internal logistics. Prioritized options to allow the site to meet its targets under uncertain policy scenarios.
LEADING BRANDED CONSUMER GOODS COMPANY	Help the organization fulfill one of its major sustainability initiatives: investing in “Closing the Loop” by examining a range of reuse, remanufacturing and recycling business opportunities.	Recommended a range of investments to help the company increase profit margins by reducing raw material, processing and labor costs while building the green credibility of the company’s brand.

2.

Business Model Enhancement

While many companies have begun to understand low carbon and sustainability issues and are implementing basic footprint development and risk management practices, they have not moved to the next level.



This next level typically delivers substantial value from integrating sustainability into everyday business activities. Greener sourcing, market positioning, customer segmentation and future strategies are just such opportunities.

Greener sourcing—Customer/consumer preferences increasingly mean that organizations need to better understand the impact of their entire industry value chain on their own products and services, and know how to use this information to improve their offerings.

Greener Market Positioning—Beyond environmental benefits, internal green initiatives can enhance an organization’s credibility and appeal to a range of stakeholders including regulators and customers. This can help, for example, with securing planning approvals or improving the appeal of a brand. Done carefully, based

on a genuine track record of sustainability actions, significant value can be unlocked.

New Customer Segments—The new greener customer psychographic is willing to pay more for green products. This represents an attractive new market for many companies. However, this segment is difficult to identify and access as it cuts across demographics. Information can be found within a company’s databases and unlocked to reveal customer willingness to pay and the product characteristics sought by this segment.

Future-Focused Strategies—In a fast-changing world with volatile commodity price fluctuations, a rapidly changing regulatory landscape, and evolving customer preferences, companies seek strategies that maximize their options and mitigate risks. Scenario analysis and corporate wargaming, originally developed by Booz & Company in the 1950s, are popular tools to inform strategy in this dynamic environment.

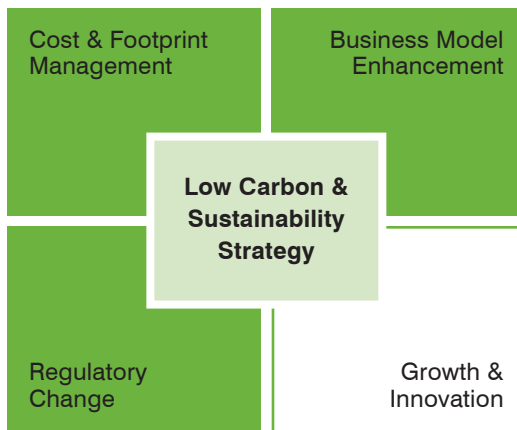
RECENT ENGAGEMENTS

CLIENT	PROJECT	OUTCOME
LEADING U.S. CONSUMER GOODS COMPANY	Implement sustainable sourcing to reduce impact on the environment and support the company's branding.	Developed a sourcing strategy which optimized environment, cost, quality, and service and looked at green levers across the product lifecycle. Assessed supplier performance with timelines and milestones to achieve sustainability targets. Developed scorecards to measure, track and report KPIs for waste, water, energy and emissions.
MAJOR MIDDLE EAST TOURIST DESTINATION	Develop a sustainability strategy to reverse degradation of natural assets and differentiate the client in a competitive tourist market.	Assessed the area's environmental health and collaboratively developed a roadmap which considered carbon emissions, biodiversity, waste and water. Developed enablers, which included governance and regulations, stakeholder participation, financing, capacity-building, education, and marketing.
LARGE U.S. UTILITIES	Determine how proposed carbon legislation would affect shareholder value under different investment strategies and generation portfolios.	Ran a wargame using a simulation and specialized models to assess market price outcomes from hypothetical carbon mandates and tested responses by the power industry. Identified the lowest risk strategies for the range of situations that could unfold.

3.

Growth and Innovation

Many low carbon and sustainability responses represent disruptive change. Booz & Company is experienced in helping organizations identify and capture the opportunities that result from these disruptions. For example:



New Product Development—Changing customer preferences and emerging technologies are creating new green product opportunities. These opportunities require a rigorous business case demonstrating demand, quantifying risks and returns, as well as a detailed implementation and commercialization plans. The rewards of new green products extend beyond increased revenue and competitive differentiation to environmental benefits and improved staff morale.

New Business Opportunities—A rigorous, exhaustive and efficient opportunity search process (such as Booz & Company’s Growth Lens Methodology) enables companies to identify attractive new business lines where existing strengths are built upon to create competitive advantage.

Renewable and Alternative Energy Sector Growth—Low emission energy sources allow utilities to alter their portfolio mix, thereby managing risks and emissions. For electricity users, renewable energy also offers the chance to reduce their emissions footprint through on-site generation. Production of renewable energy equipment provides further growth opportunities for investors.

‘Cleantech’ Deployment and Growth—Emerging cleantech companies face unique commercialization and growth challenges as they take on industry incumbents and low-cost producers. Robust growth strategies are needed to unlock latent potential and capitalize on competitive advantages, while managing the many risks.

Many of our more established clients work with us to understand the impact of emerging ‘cleantechs’ on their industries and the risks and opportunities that they create.

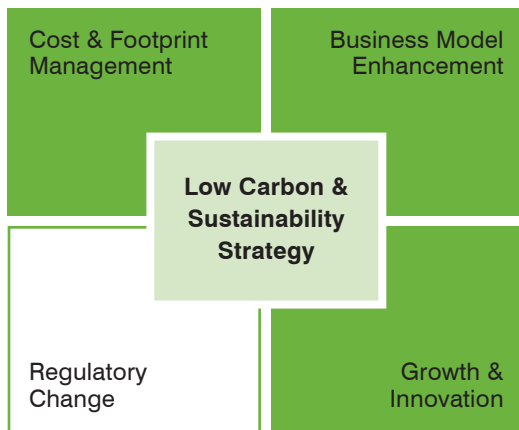
RECENT ENGAGEMENTS

CLIENT	PROJECT	OUTCOME
LEADING PUBLISHER	Identify opportunities to create a new information source focusing on renewable energy.	Rapidly mapped the market and identified attractive opportunities suited to the client's capabilities. Profiled the target audience and detailed the necessary content and focus of the information source to ensure its success with this audience.
HEAVY EQUIPMENT MANUFACTURER	Identify opportunities for revenue growth driven by sustainability in existing and new value chains.	Identified a set of global concerns and mapped these across value chains to identify gaps not being addressed. The resulting long list of opportunities was filtered for fit with client capabilities. In total, over \$4B p.a. (revenue) of potential opportunities were identified in existing and new value chains.
GLOBAL WIND TURBINE MANUFACTURER	Increase market share in a fast-growing industry against rapidly emerging Western and Asian competitors.	Diagnosed and provided recommendations to resolve key constraints to growth.

4.

Regulatory Change and New Industry Requirements

Well developed new policies, imposed by governments or key industry players, can directly drive environmental improvement and also present opportunities for early movers to be rewarded for their foresight.



Recent events around the world have demonstrated the need for evidence-based, fair and consensual policy and legislation on low carbon & sustainability—as well as efficient and effective implementation.

Our focus, for both our public and private sector clients, is on delivering tangible results, including:

Policy Research and Analysis—Governments and corporations (such as WalMart and Proctor & Gamble) are setting increasingly stringent green policies. For these organizations, understanding the implications of proposed policies is vital to:

- Ensure cost-effective responses
- Minimize adverse impacts and consequences

- Build acceptance of proposed changes

Conversely, for those impacted by policy change, an early and thorough understanding of a new policy, and the ability to influence its development, create competitive advantages.

Policy Implementation—For many governments and corporations, implementing sustainability policy requires additional capacity and capabilities. Using external assistance for these one-off tasks is proving a valid and cost-effective solution, accessing international best practice and cross-disciplinary skills to minimize failure risk and rectification costs.

Carbon Markets—Emerging carbon market mechanisms around the world are seeing companies and governments establishing and managing a portfolio of carbon assets, requiring new capabilities and creating new profit opportunities. For those in developing nations, the Clean Development Mechanism creates further opportunities.

RECENT ENGAGEMENTS

CLIENT	PROJECT	OUTCOME
WORLD ECONOMIC FORUM	Prepare and facilitate two WEF sessions on ICT sustainability—at the India Economic Summit in 2009 and at the Davos Annual Meeting in 2010.	Demonstrated the potential of ICT to create sustainable outcomes, including reducing emissions by 15% while achieving improved industry profitability. Also identified the importance of policy and international standards as enablers of change.
NATIONAL GOVERNMENT	Provide advice on how to cost-effectively manage corporate compliance for a new National Energy and Greenhouse Reporting requirement.	Adapted leading compliance approaches used by tax offices and security agencies. The resulting compliance intelligence system optimized the number of interventions and staff required. Detailed the required organization structure, role descriptions and staff training modules.
LEADING AUSTRALIAN ENERGY COMPANY	Identify cross-border arbitrage opportunities related to renewable energy targets and emissions trading.	Examined the feasibility and mechanics of linking a renewable energy target and proposed emissions trading scheme with those of a neighboring country. Identified potential value for the company through intra-company carbon trading.

A Global Expert Team

Booz & Company's low carbon & sustainability team operates on a global basis, to bring our best people and thinking together to support each assignment.

We team globally, across industries and functions, to ensure our clients have access to the

**best
expertise**

for their projects.

This approach means that our clients can access first-hand knowledge of the latest developments in the low carbon & sustainability arena from around the world.

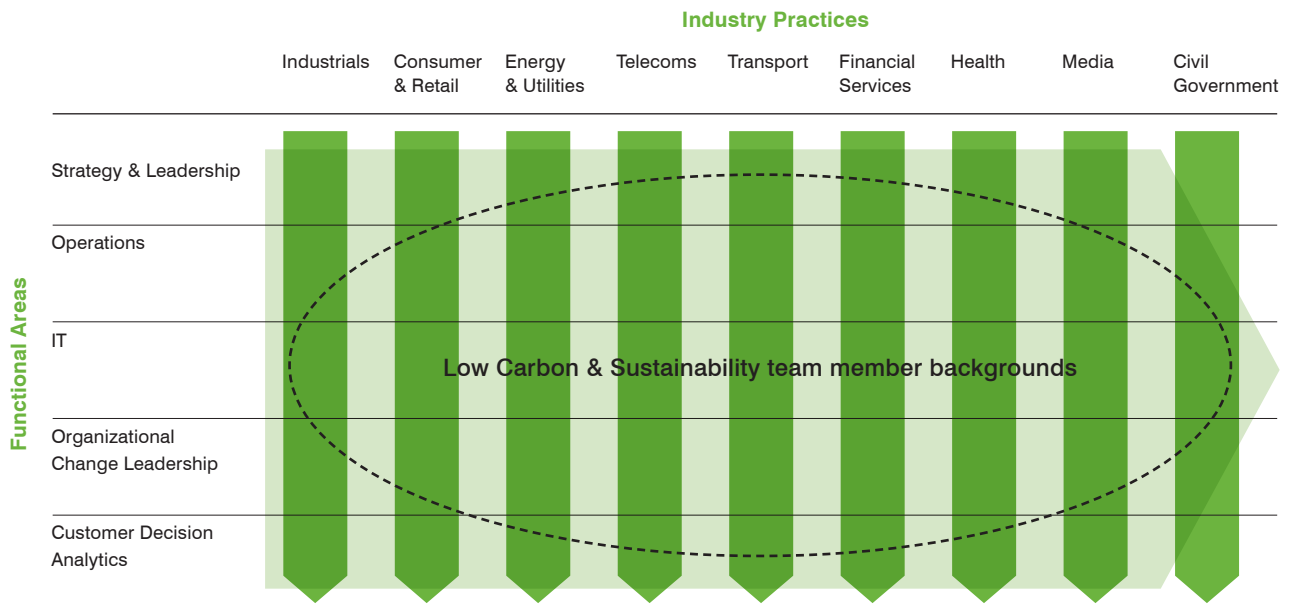
Team members bring deep experience across the full range of industries that Booz & Company serves, ensuring that low carbon and sustainability solutions can be adapted to, and are relevant for the particular industry in focus.

In addition, team members are drawn from our functional practices, providing deep expertise in operations, IT and organizational change to implement our clients' sustainability agendas.

With team members in all major geographies, we understand and adapt our solutions to local circumstances, while responding quickly to clients' needs and working effectively with local client team members.

At Booz & Company, we strive to add value while addressing some of the biggest challenges facing the planet today.

Our expertise spans commercial and public markets as well as a functional disciplines



Industry Sectors Served

We have helped clients from most industries on their journey to a more sustainable future.

Industrials

Issues and Challenges

Amongst the biggest emitters and users of raw materials, industrial companies face significant cost increases through a price on carbon and in the future on other externalities such as water and waste.

Proven Solutions

Helping industrial organizations:

- Understand their liabilities
- Manage their risks
- Identify attractive emission reduction actions
- Capture emerging opportunities

Consumer and Retail

Issues and Challenges

Leading consumer and retail companies strive to differentiate themselves and serve emerging green customer segments.

Proven Solutions

Customer analysis enables a better understanding of green customers and their needs. Supply chain and footprint analysis facilitate the design and implementation of cost-effective greener products.

Energy and Utilities

Issues and Challenges

As the greatest producer of greenhouse gas emissions, a significant contributor of other pollutants and a large water user, those in the energy industry who are focused on fossil fuel technologies are under significant environmental pressure.

Proven Solutions

Helping energy companies understand their position and develop solutions including:

- Carbon trading capability development
- Emission reduction projects
- Renewable energy investments

Beyond generator clients, Booz & Company also helps to commercialize and grow emerging low-carbon energy technologies.

Communication and Technology

Issues and Challenges

Leading ICT companies consider their role in environmental impact reduction to include:

- Reducing their own footprints (e.g., through more efficient operations)
- Enabling customers to reduce their footprints through the use of their technologies (e.g., videoconferencing instead of flying)

Proven Solutions

Assisting with internal activities and bringing innovative new green solutions to market based on an understanding of customer needs and rigorous investment cases.

Transportation

Issues and Challenges

Emerging technologies present a wide range of alternative paths in terms of modes, fuels, usage and powertrains. Winners will successfully reconcile existing infrastructures and consumer habits with environmental improvements.

Proven Solutions

Advising automotive, air and rail clients on how to profitably navigate these inter-related factors.

Financial Services

Issues and Challenges

The financial services industry is addressing environmental issues many ways:

- Banks are establishing carbon trading desks and financing green projects.
- Funds are offering green investment options and examining the impacts of carbon pricing on their portfolios.
- Insurance companies are concerned about the changing environment impacting on their books.

Proven Solutions

Combining deep financial services understanding with low carbon and sustainability know-how to provide practical advice on products and solutions.

Industry Sectors Served/ *continued*

Health

Issues and Challenges

Many health companies are improving their operations' sustainability and extending sustainability activities into the community with health and lifestyle initiatives. These initiatives improve the companies' brands while raising awareness of health and lifestyle choices, leading to increased product demand and a healthier community.

Proven Solutions

Helping health companies develop and pursue their sustainability agendas.

Media

Issues and Challenges

The changing world demands new information delivered more efficiently.

Proven Solutions

Assisting media companies to capture new opportunities using sustainability expertise, opportunity identification processes, and strategic perspectives.

Civil Government

Issues and Challenges

Designing and implementing new sustainability and emission reduction legislation is a new field for which capabilities are scarce and precedents are few.

Proven Solutions

Drawing on our history of successful government projects, global low carbon and sustainability team, and strong understanding of the corporate sector, Booz & Company brings best practices in policy development and implementation to avoid mistakes made elsewhere and to ensure efficient, low risk uptake.

THOUGHT LEADERSHIP

We are leaders in low carbon and sustainability foresight. Examples of recent publications can be found on our website, www.booz.com/global/home/what_we_think/low_carbon/lc_thought_leadership. Recent publications include:

General

- Going for Green: A Capabilities-Driven Approach to Environmental Opportunity
- The Low Carbon World is Already Here: Five Imperatives for Succeeding in an Era of Carbon Constraints
- Climate Change after the Kyoto Protocol: A New Architecture for Global Policy
- Beyond Green Hype: Unlocking Energy Efficiency
- Maximizing Value in a Low Carbon World (with the Investor Group on Climate Change/ Carbon Disclosure Project)
- Reinventing the City: Three Prerequisites for Greening Urban Infrastructures (with the World Wide Fund for Nature—WWF)
- How Big is Your Carbon Footprint?
- Next-Generation Supply Chains: Bigger Steps Smaller Footprints
- Pollution, Prices & Perception

Transport

- Green Tourism—A Road Map for Transformation
- The Future of Green Aviation
- Towards A Low Carbon Travel & Tourism Sector (with World Economic Forum)
- The Hybrid Tipping Point

Energy

- Energy Shift: Game-Changing Rules for Fueling the Future
- The Future of Energy
- Towards a ‘Smart Grid’—Rollout of Advanced Metering Infrastructure
- The Bounty of Biofuels: Perception versus Reality
- Coal’s Black Future

Communication and Technology

- Demystifying Green IT: Seeding Advantage
- The Green Way: Technology-Enabled Sustainability
- ICT Eco-synergies: Greater Industry Cooperation Can Pave the Way for Green Innovation (with the World Economic Forum)
- ICT for a Low-Carbon World: Activism, Innovation, Cooperation (with the World Economic Forum)
- Going Green: Addressing Untapped Consumer Potential in the Telecom Industry

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Dr. Ringbeck is a senior vice president based in Düsseldorf. As leader of the global travel and transport activities, he has led a range of related sustainability projects around the world and also serves as a senior advisor to the World Economic Forum (WEF) and the UNWTO.



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As a partner and leader of the civil government practice, Andrew has assisted governments around the world with fact-based climate change policy development and the implementation of carbon reporting initiatives.



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The most recent list of our offices and affiliates, with addresses and telephone numbers, can be found on our website, www.booz.com.

Worldwide Offices

Asia	Bangkok	Helsinki	Middle East	Florham Park
Beijing	Brisbane	Istanbul	Abu Dhabi	Houston
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Mumbai	Kuala Lumpur	Milan	Doha	New York City
Seoul	Melbourne	Moscow	Dubai	Parsippany
Shanghai	Sydney	Munich	Riyadh	San Francisco
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	Amsterdam	Rome	Atlanta	Buenos Aires
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Booz & Company is a leading global management consulting firm, helping the world's top businesses, governments, and organizations. Our founder, Edwin Booz, defined the profession when he established the first management consulting firm in 1914.

Today, with more than 3,300 people in 61 offices around the world, we bring foresight and knowledge, deep functional expertise, and a practical approach to building capabilities and delivering real impact. We work closely with our clients to create and deliver essential advantage. The independent White Space report ranked Booz & Company #1 among consulting firms for "the best thought leadership" in 2010.

For our management magazine *strategy+business*, visit strategy-business.com.

Visit booz.com to learn more about Booz & Company.
