

**BLUEPRINT
FOR BUSINESS
LEADERSHIP
ON THE SDGS**

**9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE**



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



How business leadership can advance Goal 9 on Sustainable Industry, Innovation and Infrastructure



Industry, infrastructure and innovation are key drivers of economic growth and social value creation. Sustainable industrialization can lift communities out of poverty but needs to be managed carefully to avoid additional pressures on people and planet. In developing countries alone this requires a \$1 trillion gap in annual investment spending needs to be addressed. Industrialization and, more broadly, economic development crucially depends on quality, reliable infrastructure. Without it, communities and businesses remain deprived of access to markets, quality products and services, and jobs. Globally, 2.6 billion people cannot access a reliable electricity source and over 4 billion do not have internet access. As these gaps are filled, industry and infrastructure assets must be resilient to changes in social, economic, and environmental conditions. To achieve inclusive and sustainable industrialization and deliver quality, resilient infrastructure, technological and process innovations must be developed and deployed at scale.

As producers, employers, investors, and innovators, businesses are fundamental to achieving Goal 9. Business delivers through its research, development and deployment of technologies and processes, and its financing and production of capital assets and infrastructure. But business is also instrumental in creating an enabling environment for innovation and investment through its engagement with other stakeholders such as Governments on innovation, policy, and accessibility to their intellectual property and other assets. Business, of course, has an obligation to comply with relevant laws designed to protect people and the environment. However, responsible business practice moves beyond strict legal compliance toward supporting internationally recognized standards of conduct.

Leading companies contribute to Goal 9 with actions that impact both their own practices and those of others. Internally, they foster intrapreneurship and ethical leadership to create a corporate culture that supports innovation and business activities with inclusion and sustainability at their heart. Companies can lead through research, development and deployment of products, services, and business models to deliver sustainable and resilient infrastructure; particularly those tailored for challenging conditions in developing countries where the need is greatest. They can support inclusive and sustainable upgrading of industries in developing countries through global value chains, by focusing on transferring technologies and skills to

build local capabilities. Leading companies can create innovation systems for sustainable development by providing access to finance, fostering entrepreneurship, and pooling financial and research resources in a global knowledge base. They can also lead in upgrading and retrofitting of infrastructure and industry assets across own and supply chain operations to make them sustainable and resilient.

Leadership on Goal 9 represents a significant market opportunity for businesses. Retrofits and installation of new infrastructure is a market worth \$3.7 trillion annually. Delivering this infrastructure can allow businesses to access new markets for their products and services, as well as access to underserved labour markets and resources, while respecting international standards for environment and social impacts. The transition to a green, resilient industrial and infrastructure base globally represents a significant investment opportunity with large rewards for businesses that can position themselves at the leading edge of the sectors that must deliver it.

Action on Goal 9 is strongly interconnected with many other SDGs, most notably Goal 11 on sustainable cities and communities, and Goal 12 on responsible consumption and production. Efforts to create new opportunities for innovation and employment in developing countries directly relate to Goal 8. Infrastructure-dependent SDGs including those relating to food (Goal 2), water and sanitation (Goal 6), energy (Goal 7), and climate action (Goal 13) will also benefit from action on Goal 9. Leading action must be managed such that it does not risk exacerbating existing inequalities, or creating new ones, and so that it is not contributing to any form of corruption and violation of human rights that would negatively impact on a range of SDGs.



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE**Business Actions in Support of Goal 9****Targets of Goal 9**

9.1 Develop quality, reliable, sustainable and resilient infrastructure

9.2 Promote inclusive and sustainable industrialization

9.3 Increase access of SMEs to financial services and markets

9.4 Upgrade and retrofit existing infrastructure to make industries sustainable

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries.

Business Actions**1**

Research, develop, and deploy products, services and business models to deliver sustainable and resilient infrastructure

2

Support inclusive and sustainable upgrading of developing country industries in global value chains

3

Create innovation systems for sustainable development by providing access to finance, fostering entrepreneurship, and pooling financial and research resources in a global knowledge base

4

Upgrade and retrofit infrastructure and industry assets across own and supply chain operations to make them sustainable and resilient

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Do your actions satisfy the Leadership Qualities?



Guiding Questions
to apply to the Leadership Qualities to your business

Intentional

- Is your company committed to supporting the achievement of Goal 9? Have you developed a holistic strategy that reflects this commitment, covering end-to-end operations and the wider community?
- Are you committed to learn from your actions and do you have processes in place to improve them accordingly?
- Is your strategy supported by the highest levels of management, including the Board of Directors?

Ambitious

- Do your actions achieve long-term outcomes that greatly exceed those resulting from current industry practice?
- Are your actions aligned with what is needed to achieve Goal 9?

Consistent

- Is support for Goal 9 embedded across all organizational functions?
- Are staff and board incentives aligned with achieving Goal 9?

Collaborative

- Do you proactively look for opportunities to partner with Governments, UN agencies, suppliers, civil society organizations, industry peers and other stakeholders to inform how to advance Goal 9?

Accountable

- Do you publicly express your commitment to advance Goal 9?
- Do you identify, monitor, and report on impacts, including potentially adverse impacts?
- Do you mitigate risks associated with your action?
- Do you remediate negative impacts associated with this action?
- Do you engage stakeholders in a meaningful way?

Key Considerations
for Goal 9

Leading on Goal 9 requires activities to be carried out over the long-term, necessitating continuous, strong backing and clear explanation of benefits to all stakeholders of the company. This requires a top-level strategic commitment.

Ambitious action on industry, infrastructure, and innovation focuses on the areas of greatest need where the company's capabilities most strongly complement the capabilities of other actors. Actions have the potential to achieve impact at scale through inspiring others to replicate it.

A full commitment to Goal 9 means that the company consistently maximizes sustainability of all its assets and throughout all its innovation activities. It is important that all staff are appropriately incentivized for doing so, as cutting on sustainability can be an attractive way to control budgets.

Large investment projects always need to be delivered in close consultation with all affected stakeholders, due to their complex nature, high levels of impact, and long lifespans. Care must be taken to align projects with national development plans, especially in least developed country contexts.

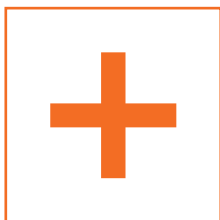
Making commitments public, and monitoring and reporting on progress, is key in the context of Goal 9 given the significant development impact of large projects. Any risks of negative impacts on people and planet associated with actions should be managed carefully, and safeguards should be in place.



How taking action on Goal 9 is interconnected with other Goals



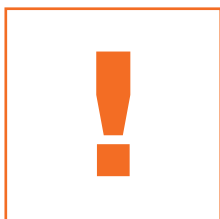
The Global Goals are inherently interconnected. Action taken toward one Goal can support or hinder the achievement of others. Identifying and addressing these interconnections will help business to build holistic and systemic solutions that amplify progress and minimize negative impacts. To help build a greater understanding, we have illustrated some of the ways in which the Goals connect. These are not exhaustive, and we encourage business to consider how they apply in their own operations.



Maximise likelihood of positive impact on:



Sustainable infrastructure is core to the development of sustainable cities (Goal 11), and these goals can be pursued in tandem. Developing more sustainable industrial processes and products through R & D investments will further enhance efforts to improve sustainability in the production of goods and services (Goal 12). Sustainable infrastructure can support more productive agricultural practices (Goal 2), greater access to WASH (Goal 6), and clean energy (Goal 7). Resilient infrastructure in vulnerable communities also increases adaptive capacity to climate change (Goal 13).



Minimise risk of negative impact on:



Infrastructure investment and industrial development involve large financial flows, which can involve risks of illicit business conduct, including corruption and bribery, in all markets. Relatedly, there is a risk of increased inequalities if the economic benefits flow only to a small group, particularly in cases where there may be corresponding negative impacts on livelihoods of other communities (Goal 10). This in turn could lead to injustice and an erosion of institutions (Goal 16). Displacement of communities for large infrastructure projects tends to disproportionately affect women and children (Goal 5) and vulnerable communities. If projects do not adhere to stringent environmental performance standards they may cause serious harm to life on land (Goal 15), life below water (Goal 14), and the climate (Goal 13).

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BUSINESS ACTION 1

Research, develop, and deploy products, services and business models to deliver sustainable and resilient infrastructure



Governments and businesses spend \$3 trillion per annum on infrastructure projects, collaborating through public-private partnerships. Businesses supply the majority of the technology and skills underpinning the construction and operation of these assets. These activities should comply with all the relevant standards and requirements of the country. Leading companies can, on their own or preferably in partnership with Governments and other stakeholders, engage in the research, development, and deployment of new products, services and business models that can deliver on the world's long-term infrastructure challenges. This can include applying innovative methods to maximize the share of urban residents with access to project benefits and essential services, and innovating for more sustainable, resilient infrastructure technologies.

Example practice

- A technology company **launches a targeted offering for municipalities** designed to implement solutions for sustainable urban services infrastructure (e.g. photovoltaic road, in situ infrastructure development)
- An investment bank **launches a green bond** to finance sustainable infrastructure in a developing country and partners with government to select projects based on criteria that include climate resilient design and inclusive service delivery



Consider the leadership qualities and interconnectedness of your action, including...

Ambition: ambitious infrastructure solutions can deliver better services at lower cost to recipients than conventional solutions. They are sustainable, resilient, and tailored to local needs relating to patterns of use and environmental conditions.

Accountability: infrastructure projects have a large impact on local communities. The development of infrastructure solutions should allow for careful management and minimization of risks of negative impacts associated with construction, operation, and eventual disposal.

Interconnectedness: many sdgs rely on infrastructure investments, including Goal 6 (water and sanitation), Goal 7 (clean and affordable energy) and Goal 11 (sustainable cities and communities).

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BUSINESS ACTION 2

Support inclusive and sustainable upgrading of developing country industries in global value chains



Most national development plans in developing countries call for an increase in the share of employment in industry. All businesses with industrial operations and/or strategic industrial suppliers in developing countries must have policies in place to ensure that these activities are inclusive and sustainable. But an essential element of developing countries' upgrading in the global value chain is the transfer of technology and skills. To facilitate this, leading companies can establish, invest, or partner with operations with higher added value production processes in developing countries and support skills transfer and develop local labour markets through inclusive training and apprenticeship programs. They can partner with peers, government, and other stakeholders to help design complementary policies and education programmes, and to ensure that they build on existing capabilities and align with national development plans. This maximizes the chances of successful technology and skills transfer.

Example practice

- A food manufacturing company develops nutrient-fortified grains to deliver nutrients and vitamins to malnourished populations, with **production facilities in developing countries** and workers including smallholder farmers, over half of whom are women
- A fashion retailer **builds sustainable garment manufacturing sites in remote areas of a developing country**, providing women in rural communities with access to decent work
- A minerals company advocates for a sustainable special economic zone focused on mineral processing in a developing country to develop higher value exports from the country's natural resources and commits to investing in shared infrastructure to attract other high value companies to the country



Consider the leadership qualities and interconnectedness of your action, including...

Collaboration: developing an industrial base in a developing country requires full collaboration with relevant stakeholders to ensure that the industry is compatible with local capabilities and development plans.

Accountability: companies operating in developing countries should manage risks of negative impacts on vulnerable populations and the environment, and not move operations to avoid more stringent regulation in the home country. They should have appropriate safeguards in place, including strong anti-bribery and corruption policies. They should carefully monitor and report on their progress to make themselves publicly accountable.

Interconnectedness: sustainable and inclusive industrial development is particularly strongly connected to Goal 8 (decent work) and sustainable production and consumption (Goal 12). But supporting industrialization can have negative impacts on the environment (Goals 13, 14, and 15) if it is not sustainable, and may reinforce existing inequalities (Goals 5 and 10) if it is not inclusive.

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BUSINESS ACTION 3

Create innovation systems for sustainable development by providing access to finance, fostering entrepreneurship, and pooling financial and research resources in a global knowledge base



Inclusive, sustainable industrialization and infrastructure require far more conducive and productive local and global innovation systems. These systems can only emerge with the full support of the private sector and its unique innovation capabilities. Companies can play an active role in shaping these systems by supporting Governments at the national level but activity at the global level is also crucial, as the scale of the challenge of achieving Goal 9 calls for fruitful global innovation systems. Companies can support innovation systems for sustainable development by fostering entrepreneurship within the company itself and by financing external innovative enterprises through venture capital and incubators. Leadership in international innovation systems can consist of extraordinary contributions to global pools of research infrastructure. It can also consist of significant contributions to the global knowledge base through education and research funding. Leading companies take measures to ensure that the innovation systems that they support, and the findings that come from them, are open and accessible. They can also proactively engage peers, supply chain members, and Governments. Where possible, they engage representatives of vulnerable people and natural assets to understand areas of need that can be addressed with innovative solutions.

Example practice

- A consumer goods company **awards venture capital to SMEs looking to scale technology solutions that provide access to clean water in developing countries**
- A coffee retailer shares ten years of proprietary agronomy research to farmers in developing countries to support climate-smart practices in vulnerable areas and raise farm incomes through sustainable coffee farming
- A cement company **sets up a horizon scanning team to identify future business models** that are in line with climate and sustainability policies
- A global science-based company active in health, nutrition and material leads a consortium running **an innovation campus, which provides state-of-the-art facilities for innovative businesses** in the field of sustainable and smart materials and chemical processes



Consider the leadership qualities and interconnectedness of your action, including...

Collaboration: businesses will need to partner with a range of institutions to create innovation systems, including those in higher education, civil society and industry peer groups

Accountability: innovation and technological advancements can reinforce existing inequalities. Companies should meaningfully engage vulnerable groups to understand areas of need, and minimize risks of negative impacts that their initiatives and solutions may have.

Interconnectedness: innovation for sustainable and inclusive industry and infrastructure can contribute to the entire 2030 Agenda, and to decent work (Goal 8) and sustainable production (Goal 12) in particular.

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BUSINESS ACTION 4

Upgrade and retrofit infrastructure and industry assets across own and supply chain operations to make them sustainable and resilient



Business plays a central role in planning, designing, financing, building, and operating infrastructure and industrial assets. Yet large parts of the world's existing infrastructure and industrial asset base are not fully functional, not designed to withstand increasing weather variability and environmental hazards, nor accommodate changing economic realities associated with long-term sustainable development. In developing countries, there is a critical lack of sustainable, resilient infrastructure and industry assets to enable long-term sustainable development. All businesses are expected to manage risks of negative environmental and social impacts over the lifetime of their assets. But leadership requires asset owners and operators to factor into their investment planning different future states of the world that factor in population growth, technology and demand shifts, changing weather patterns, natural hazards, and conflict. Leading companies should also retrofit assets to make them sustainable, with increased resource-use efficiency and ensure greater adoption of clean and environmentally sound technologies and industrial processes. Leading companies focus these efforts on own and supply chain operations, partnering with supply chain members to build capacity and provide resources to do so.

Example practice

- A transport company **use sensors in infrastructure to develop analytics for whole life infrastructure efficiency** and shares learnings with relevant stakeholders in developing markets
- A hydroelectric dam developer **conducts a lifecycle impact analysis for projects** to consider impacts across a range of development pathways and outcomes over the life of installed assets
- A port in Europe **works with a multilateral development bank to secure finance** and technical capacity to raise its quay wall in order to improve resilience to rising sea levels



Consider the leadership qualities and interconnectedness of your action, including...

Ambition: investment in, and retrofitting of, resilient assets requires owners to deploy full lifecycle and climate resilience analysis. Ambitious action delivers resilience in areas with the greatest need.

Collaboration: collaboration with government on policies for enhanced resilience and affected communities is key to achieve systemic change.

Accountability: large infrastructure and industrial investment projects have a significant impact on local communities. The development of all assets should allow for careful management and minimization of risks of negative impacts associated with construction, operation, and eventual disposal.

Interconnectedness: increasing asset resilience can help local communities adapt to the impacts of climate change (Goal 13) and water stress (Goal 6), and increase food security (Goal 2).

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