

In collaboration with
Accenture and Clean Air Fund



Making Clean Air Your Business

Key Messages about Clean Air for Decision-Makers

OCTOBER 2022



Executive summary

Most companies [now recognize](#) that an environmental, social and governance (ESG) approach is linked to performance, not merely compliance. They are taking steps to evaluate the potential risks and opportunities that ESG presents. This is an unprecedented opportunity to transform how companies manage and report on their ESG priorities and air pollution has a large role to play.

Air pollution is the single greatest environmental risk to human health.¹ Every organization, regardless of sector or size, contributes to the problem through supply chains, office buildings, transport, employees, manufacturing and more. The good news is that companies can cut air pollution using the same methods they put in place to reduce greenhouse gases. This toolkit aims to help the private sector make purposeful and impactful changes.

Air pollution causes over 7 million premature deaths each year² – more than the deaths from tuberculosis,³ HIV/AIDS⁴ and malaria combined.⁵

It is the single greatest environmental risk to human health:⁶ **99% of the global population breathes air that exceeds internationally**

approved limits.⁷ Every business with offices, employees and transport adds to the problem of air pollution and suffers from its consequences.

The World Bank estimates air pollution costs \$5.11 trillion a year in welfare losses,⁸ which is more than 4% of global GDP. Some 3.8 billion workdays could be lost due to pollution by 2060.⁹ It also hinders cognitive abilities,¹⁰ impacting productivity.

It accelerates the climate crisis, destabilizing the environment and food security with it.¹¹

Reducing short-lived climate pollutants could avoid an estimated 0.6°C of warming by 2050, slowing the pace of Arctic warming by two-thirds.¹²

Why the private sector should care about clean air

1. It creates shareholder value through stronger ESG propositions
2. Consumers are choosing to spend with greener companies (increasing brand value and revenue)

3. Employees stay healthier – as absenteeism goes down, productivity goes up

4. It is easier to attract talent in less-polluted areas

5. It advances at least 15 Sustainable Development Goals (SDGs)

6. It improves company reputation and legacy

Focusing on innovation and consistently driving change, the private sector has great potential to improve air quality. By creating solutions and delivering low-emissions technologies, goods and services, businesses can challenge the status quo and disrupt outdated practices that pollute the planet.

Clean air is critical to many ESG issues, including health, climate and equity. But it is often overlooked. Failing to capture and measure progress on air pollution is a missed opportunity. Positive change is a good news story for your stakeholders – and 99% of the population.



According to the World Health Organization, air pollution causes 7 million premature deaths each year.¹³ Traditionally, this has been seen as the responsibility of government and public officials in cities. It's time for the corporate sector to step up and be part of the solution, both in their own performance, collaborating with others and providing the innovation that we know enterprise can bring to solving the world's greatest problem. No more words, time for action.

Peter Lacy, Global Sustainability Services Lead and Chief Responsibility Officer, Accenture



Making clean air your business

Clean air is a secret weapon in tackling many issues, including the climate crisis, fostering inclusive societies and moving towards sustainable economic growth. It's fundamental to the impact business has on the health of society and the environment.

Environmental, social and governance (ESG) approaches are a key priority for the world's business leaders but the role of clean air in progressing many ESG issues is often overlooked. The good news is that companies can cut air pollution using the same methods they put in place to reduce their carbon footprint. Failing to capture and measure this progress on air pollution is a missed opportunity.

The purpose of this document is to:

1. Provide you with the crucial headlines about air pollution and its impact on health, the economy and the environment
2. Detail the benefits of addressing air pollution – and why the private sector should care
3. Share blueprints for successful clean air strategies based on solutions from across the private sector.

Reading this will give you the knowledge to engage and influence your leadership team, joining other businesses to act.

The accompanying [Clean Air Business Case Framework](#) will help you build the business case for initiatives aiming to reduce air pollution. It includes a step-by-step process including whom to engage and how to assess the value created by reducing air pollution.

The private sector has great potential to improve air quality. Focusing on innovation and consistently driving change, it can devise new solutions to provide low-emissions technologies, goods and services. Rather than compound the problem, businesses can help rebalance the relationship between humans and the planet and create cleaner air for all.

It is necessary for more leaders to challenge the status quo and disrupt outdated practices that pollute the planet.

This is a call to use your influence and power to make a positive impact, save lives and change the world while driving sustainable business growth, creating a legacy of meaningful change towards a healthier, less polluted and less toxic planet for current generations and those to come.

The Alliance for Clean Air brings together leading businesses to commit to measuring and reducing value chain air pollutant emissions, investing in innovation and working with policy-makers and peers to champion the social, economic and climate benefits of tackling air pollution.



If we told you



you have the power to prevent dementia,¹⁴ reduce infertility¹⁵ and premature birth rates¹⁶



you have the power to improve the world's crop yields,¹⁷ reduce the intensity of storms¹⁸ and ensure healthier ecosystems¹⁹



you could help solve the climate crisis (even without much practical help from global leaders and governments) while driving sustainable business growth and future-proofing your organization

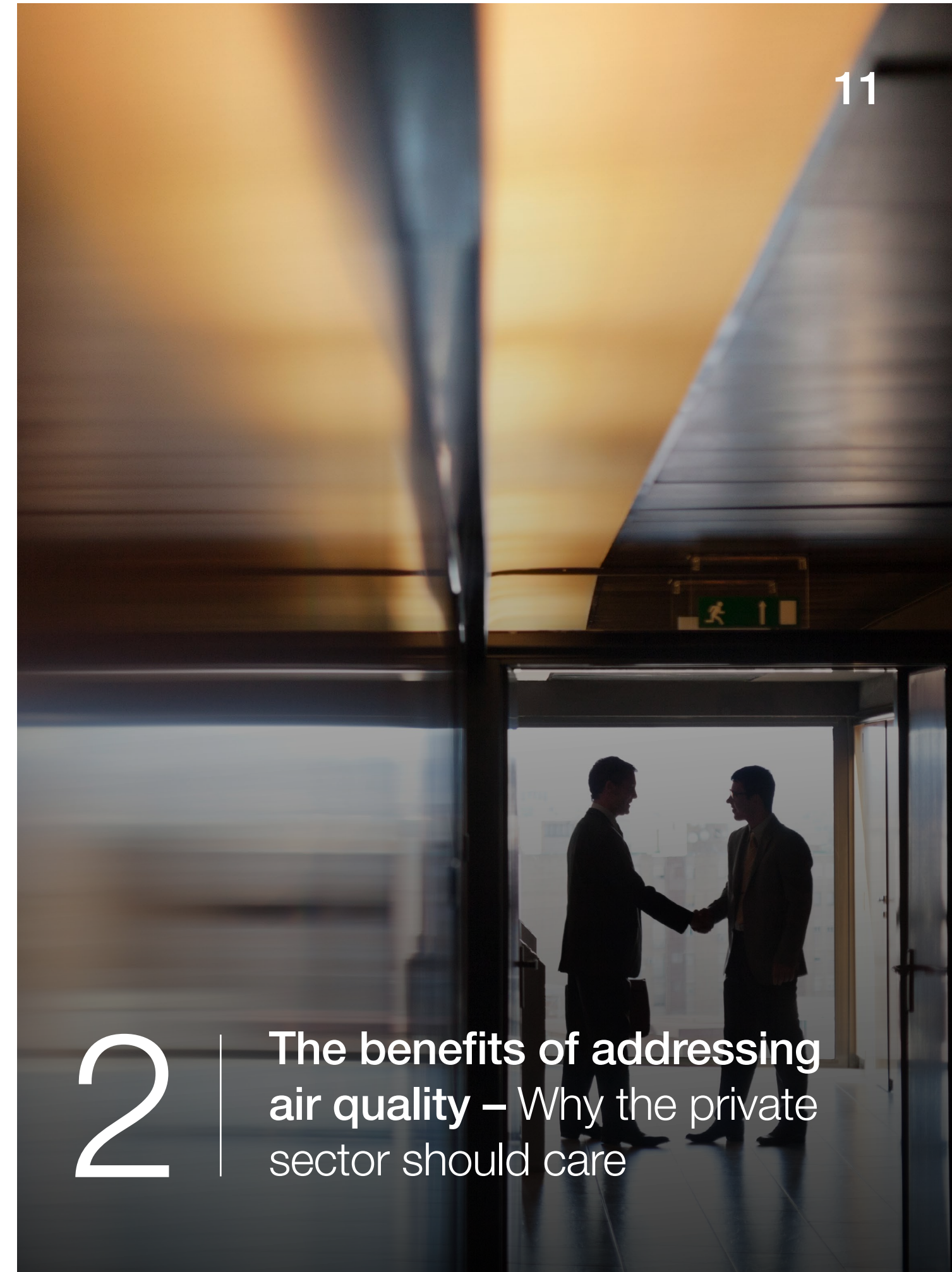
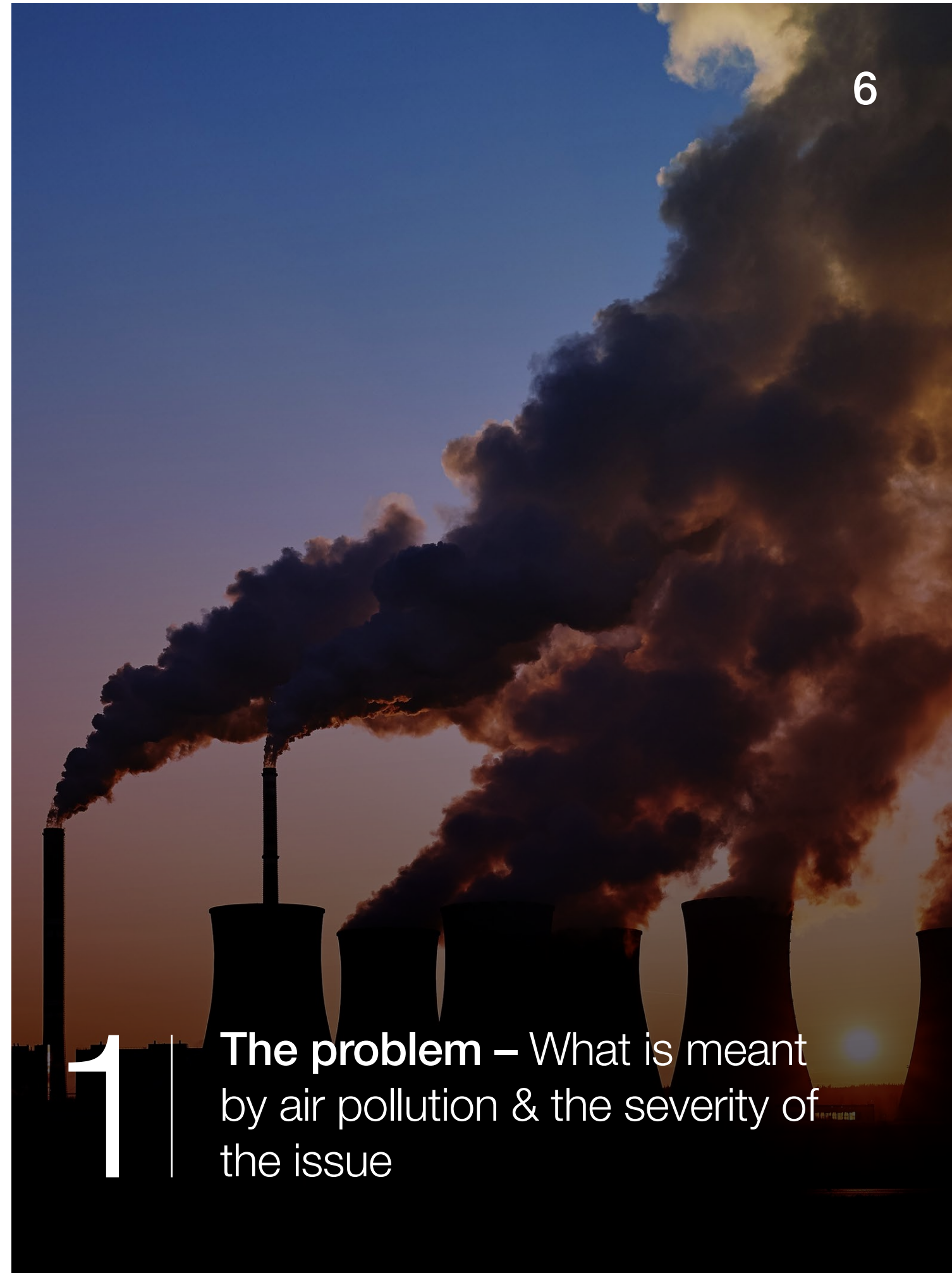
would you do it?



As business leaders, taking positive action today is as much a matter of personal and corporate legacy as it is a public and environmental health emergency.

So, what do you say?

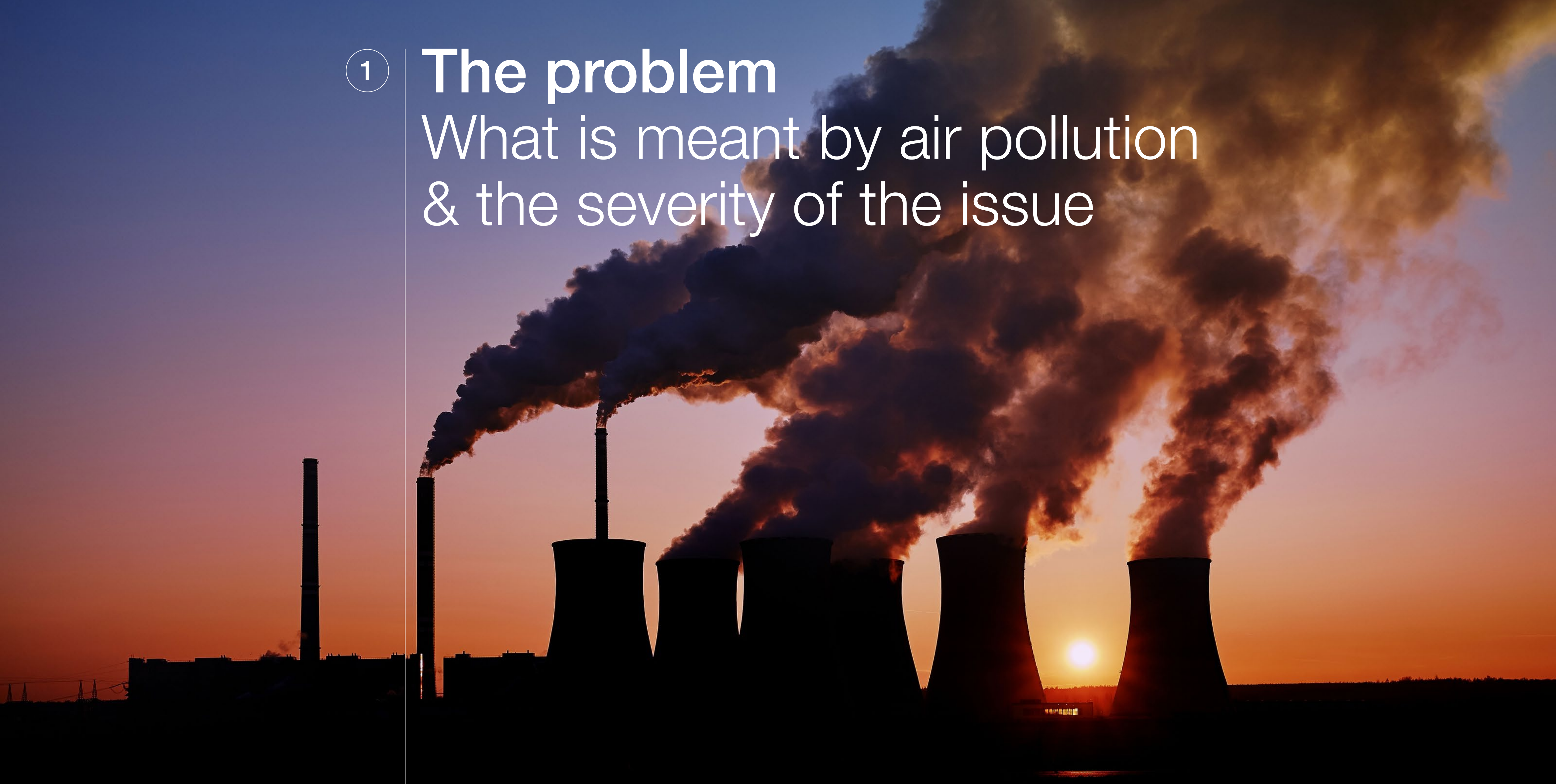
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1

The problem

What is meant by air pollution
& the severity of the issue

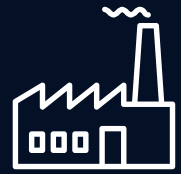


What is air pollution and what causes it?

Air pollution is any gas or particles in the air that can cause harm to people’s health. These substances come from many sources but especially from burning fossil fuels for power and transport, burning waste, and dust from construction and agricultural practices.²⁰ This pollution can significantly impact those close to the source and can also be carried long distances.

If you have an office building, employees and transport, you will be contributing to the problem and suffering from its consequences, regardless of your industry sector or the size of your operations. The [Clean Air Business Case Framework](#) can help you measure this across the value chain and determine which actions would be appropriate to help mitigate these emissions.

The 5 main causes of air pollution from humans	
1. Power generation	Burning fossil fuels is the biggest source of outdoor air pollution and much of those are burned to make electricity. Coal-burning power plants are a major contributor and diesel generators cause significant emissions in off-grid areas.
2. Transport	The global transport sector is a rising cause of air pollution globally and affects health in particular due to the proximity of vehicles to humans. Petrol and diesel are the main contributors, so shifting to sustainable transport will reduce the problem. Transport emissions have wide-ranging health impacts. For example, people living close to major traffic areas are up to 12% more likely to be diagnosed with dementia.
3. Industry	Industrial activities produce air pollution – in particular the chemical and mining industries. The construction industry also generates a lot of dust, especially in rapidly developing and arid climates, contributing to particulate pollution.
4. Agriculture	The main sources of pollution from agriculture include livestock (methane and ammonia), rice paddies (methane) and burning agricultural waste (particulate matter). Methane contributes to the formation of ground-level ozone, which causes asthma and respiratory illnesses. Ammonia combines with nitrogen oxides to produce particulate matter.
5. Waste	An estimated 40% of waste is openly burned globally, releasing fine particulate matter into the atmosphere. Waste dumps can also produce methane, which can form ground-level ozone.



Air pollution is the single greatest environmental risk to human health.²¹

99%

Some 99% of the global population breathes air that exceeds internationally approved limits.²²

7 million

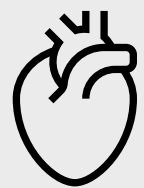
It contributes to 7 million premature deaths per year – more than the deaths from tuberculosis, HIV/AIDS and malaria combined.²³

1.8 years

People lose on average 1.8 years of their life due to harmful particles in the air.²⁴

500,000

Air pollution was a contributing factor to the deaths of some 500,000 infants during their first month of life.²⁵



Pollutants can affect cardiovascular health by hardening the arteries and increasing the risk of heart attack and strokes.²⁶



Pollutants triple the risk of Alzheimer's disease and contribute to other mental health conditions and degenerative brain diseases, such as Parkinson's disease and schizophrenia.²⁷

Air pollution is a global problem. "Although the associated death tolls are high in China and India, industrializing cities are heavily polluted" and highly populated, "making the relative risks to city dwellers in Europe and the United States greater."²⁸

Air pollution fuels inequality. Approximately 1 in 10 people exposed to unsafe levels of air pollution live in extreme poverty – making them particularly vulnerable to prolonged adverse impacts on their livelihoods and well-being.²⁹

1 million

Reductions in air pollution alone to meet the Paris Agreement goals could save some 1 million lives each year by 2050.³⁰



Air pollution throttles productivity and growth.

\$5.11 trillion

Estimates indicate air pollution costs \$5.11 trillion a year in welfare losses, more than 4% of global GDP.³¹

\$200 billion

In 2018, the cost to the world's economy from chronic diseases caused by air pollution was \$200 billion.³²

\$100 billion

Sick leave due to air pollution costs \$100 billion; preterm births caused by air pollution cost \$90 billion.³³

1 year

Even moderate exposure to air pollution can result in reduced cognitive ability in mathematics and on verbal tests, equivalent to 1 year of school lost.³⁴



Pollution's effect on cognitive abilities impacts the workforce, too, reducing productivity.³⁵

3.8 billion

By 2060, some 3.8 billion workdays could be lost due to pollution.³⁶



It shortens the operating life of capital equipment and increases maintenance costs.

\$17 trillion

Creating healthier, more sustainable cities would save \$17 trillion on infrastructure by 2050.³⁷

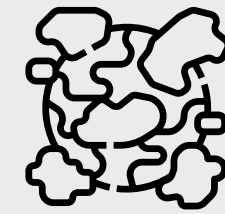


Better air quality benefits businesses by keeping workforces healthier and ensuring capital assets are more productive, which in turn leads to a more prosperous economy.



Environment & climate

Air quality is closely linked to the Earth's climate and ecosystems globally, creating an inextricable link between the climate emergency and air pollution. Many of the drivers of air pollution (i.e. burning fossil fuels) are also sources of greenhouse gas emissions.³⁸



Air pollution is disrupting the fundamentals of the planet's ecosystems³⁹ that contribute to food stability, such as photosynthesis and water and soil quality.



It affects biodiversity worldwide, disturbing the food chain with crop failures and the loss of certain species.

50%

In hard-hit regions, records show it has reduced crop yields by 50%, imposing a major risk to food security.⁴⁰



Ozone depletion is killing increasing numbers of plant species.⁴¹



Acidification, caused by sulphur dioxide and nitrogen oxides from burning fossil fuels and nitrogen fertiliser used in farming, affects ecosystems.⁴²



The resulting acidic environments make it difficult for fish to survive and these environments kill plants when the acid dissolves nutrients in the soil. The toxins in acid rain make plants unfit for human consumption, affecting global food supplies.⁴³

0.6°C

Reducing short-lived climate pollutants could avoid an estimated 0.6°C of warming by 2050,⁴⁴ slow the pace of Arctic warming by two-thirds and reduce the heat islands experienced in cities.⁴⁵

2

The benefits of addressing air quality

Why the private sector should care



Why should the private sector care?

1 Stronger ESG propositions create shareholder value (revenue increase, risk and cost reductions)

A strong ESG proposition, which should include air quality, creates value in 5 ways: top-line growth, reducing costs, minimizing regulatory and legal interventions, increasing employee productivity, and optimizing investment and capital expenditures.⁴⁶ Global sustainable investment now tops \$30 trillion – up 68% since 2014 and tenfold since 2004.⁴⁷

2 Consumers are choosing to spend with greener companies (brand value and revenue)

Some 85% of consumers have become “greener” in their purchasing in recent years, with more than a third of consumers globally willing to pay more for sustainability.⁴⁸

3 Better employee health reduces absenteeism and drives productivity (cost and risk reduction)

There will be **3.8 billion lost working days** annually due to air pollution by 2060.⁴⁹ Improving air quality has immediate and tangible effects on people’s cognitive abilities and overall health. Lowering carbon dioxide levels and boosting office ventilation is shown to increase productivity by 8-11%.⁵⁰

4 It’s easier to attract talent in less polluted areas (cost reduction)

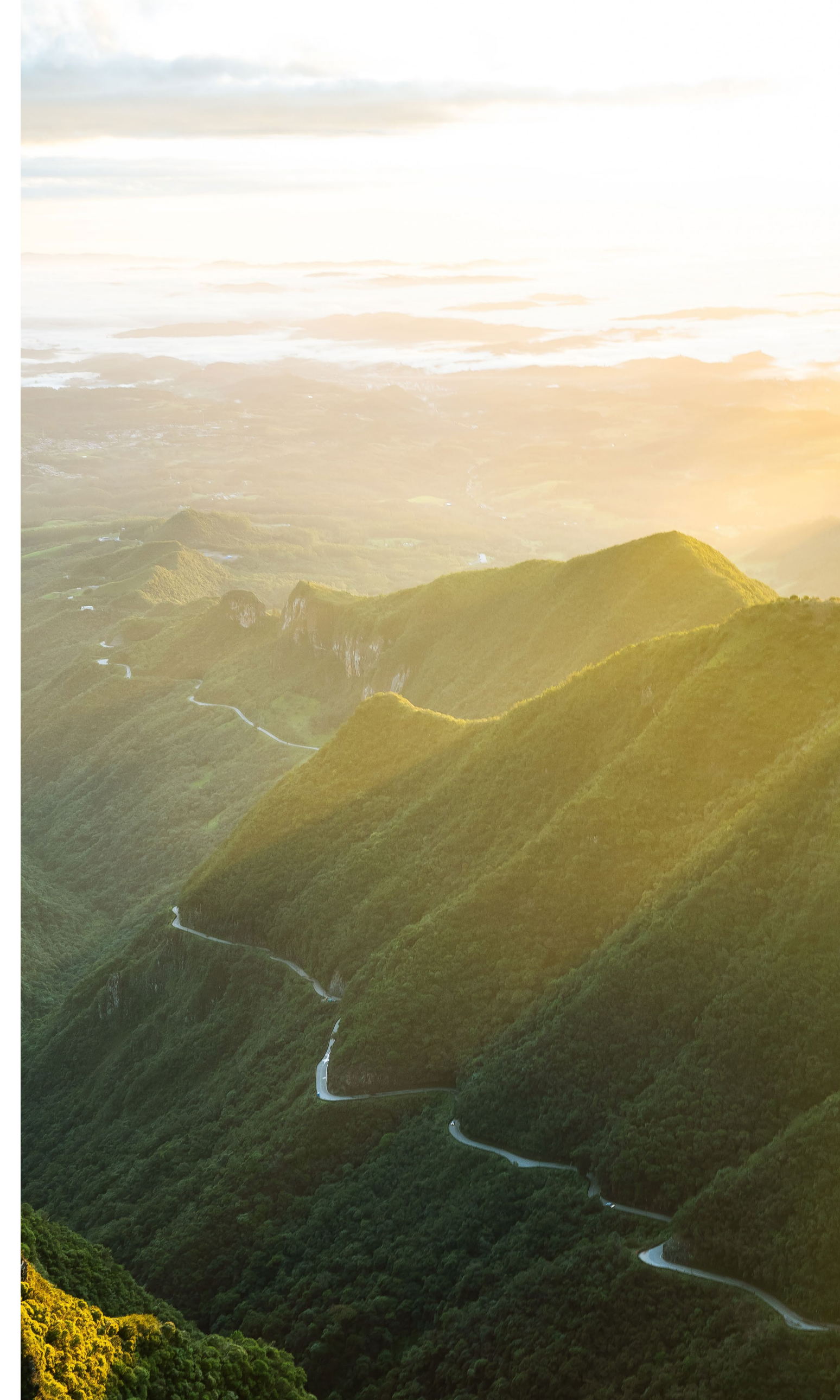
Cities with severe air pollution are viewed as less desirable places to work and this is impacting talent recruitment. In 2014, Panasonic became the first international company to offer hardship-posting compensation to foreign employees in China because of the country’s air quality.⁵¹

5 Cleaner air advances at least 15 Sustainable Development Goals (SDGs) and drives sustainable business growth (revenue increase, risk and cost reduction)

Clean air advances at least 15 of the 17 United Nations SDGs. Sustainable business models related to the SDGs could create opportunities worth \$12 trillion and increase employment by up to 380 million jobs by 2030.⁵²

6 Reputation and legacy (brand value)

When making decisions on behalf of their own company, 99% of business leaders take a company’s ESG efforts and reputation into account. Sustainable, equitable business is fast becoming the number 1 priority for all stakeholders, from governments to consumers and employees.⁵³ Some 83% of investment professionals and business leaders expect ESG programmes to contribute more shareholder value in five years than today.⁵⁴



3

The solutions

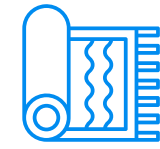
How you can act today

Ideas for action

Examples from the private sector

The moment you act to reduce pollution, air quality improves. You have the power to ensure your employees and the local communities you operate in have access to clean air.

Below are examples from private sector industries. The businesses featured are at different points on their journey to tackling air pollution. The key is that they have committed to making a start.



Agriculture (IKEA)

IKEA is avoiding burning rice straw by turning it into products such as rugs and baskets.



Construction (L&T)

L&T is using fog cannons and water sprinklers to minimize the dust released from its construction sites in residential areas.



Transportation (Maersk)

By adopting biofuels for shipping, Maersk has significantly reduced greenhouse gas emissions and is on track to being climate-neutral.



Fuel (Microsoft)

Microsoft has committed to being diesel-free by 2030. It will pilot a lower carbon renewable fuel in data centres to eliminate their reliance on diesel. This will be scaled worldwide.



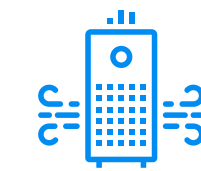
Measurement (Google)

Google's air quality maps using Street View cars to measure pollutants help citizens, scientists, authorities and organizations make better-informed decisions.



Renewable energy (LinkedIn)

LinkedIn's updated design and building guidelines call for all-electric kitchens powered by renewable energy.



Manufacturing (TATA Steel)

TATA Steel is reducing pollution levels to regulatory guidelines by using threshold-based alerts at steel plants. This automatically triggers air purifiers.



Your next steps

You are now fully armed with the facts and knowledge you need to start engaging with your shareholders, leadership team and employees to tackle air pollution and get initial support for action.

The next step will be to build a business case for initiatives that reduce air pollution. The [Clean Air Business Case Framework](#) will guide you through the process of identifying pollution sources within your organization, developing mitigating measures and assessing business benefits.

[🔗](#) Visit the [Alliance for Clean Air](#) for more information.

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