

Three Rivers Sustainable Business Programme

Manufacturing and Production Sector Sustainability

THREE RIVERS
SUSTAINABLE BUSINESS



SUSTAINABLE X



Charity sector actions

Carbon

Carbon Management:

Green House Gas emissions (measured as CO2 equivalent emissions), is the biggest and most urgent aspect of the sustainability agenda. This can be a significant impact compared to other sectors.

1. Measure your [Scope 1 and 2](#) Carbon Footprint
2. Measure your commuting carbon footprint
3. Consider your transportation and sourcing location choices
4. Consider your input materials carbon footprint
5. Reduce your business travel footprint
6. Create a strategy for and start measuring your wider [Scope 3](#) Carbon Footprint
7. Could you install renewables on-site?
8. Consider your offsetting strategy for emissions you cannot eliminate

Significant Actions for Manufacturing and Production Businesses to Consider

Product Design

Design out negative impacts, add positive ones:

Try to be sustainable design. Consider upstream inputs, product impacts in use and end of life value retention.

1. Consider alternative inputs or approaches that:
 - Reduce or eliminate use of non-renewable and restricted substances
 - Reduce weight and / or volume of inputs and end product
 - Minimise packaging
2. Minimise your product packaging and try to use renewable or recycled materials
3. Choose sustainable freight and delivery suppliers
4. Maximise design life of products and signpost how to reuse or recycle them
5. Educate customers to minimise your product impacts in use

Digitalisation

Digital transformation:

Maximise efficiency, reduce journeys and paperwork.

1. Enable proactive and predictive decision making by harmonising and integrating data, unlocking potential for AI use
2. Develop a digital supply chain strategy
3. Increase flexibility and scalability with cloud based solutions
4. Consider smart grid technology
5. Apply smart data management approaches to minimise your data storage footprint

Waste

Reduce waste generated:

One of the biggest and most urgent aspect of the sustainability agenda

1. Classify the waste by type
2. Measure the weight generated
3. Create a waste elimination plan
4. Apply Lean or Six Sigma to your processes
5. For unavoidable waste, measure % to landfill

Engage your people

Retain and attract the best talent:

Identify and harness the passion and interest of people already engaged with the agenda.

1. Involve employees in the development or update of your organisation purpose and valued behaviours
2. Create a sustainability team or group to drive action
3. Link compensation to valued behaviours and initiative success
4. Provide job specific, management and leadership training and development

Community

Support the communities you impact:

Through providing jobs, supporting local initiatives, education and charities

1. Measure the time and value given to community support and projects
2. Engage with community based initiatives and events
3. Assess your supply chain for their community impacts and contributions
4. Consider supplier sustainability assessment schemes
5. Address any employee diversity gaps relative to your community



Your Premises And Equipment:

This is an area you will need to address on your journey to Net Zero, which requires you to reduce as much as possible before offsetting what is unavoidable. Actions you can take include:

1. Consider timing of production runs in relation to grid peak power demand times.
2. Make energy rating and emissions savings key buying criteria on all new equipment.
3. Switch to a renewable energy supplier.
4. Upgrade controls on heating and lighting - including time, zone and sensor controls.
5. Change lighting to low energy or LED.
6. Install electric car and bike charging facilities.
7. Make building fabric energy efficiency improvements, including air leakage reduction.

Sustainability definitions

It is important that everyone in your organisation shares the same understanding and definition of sustainability. The three major impact areas are often categorised as environmental, social and economic.

Typically people think of environmental issues including carbon reduction, and clearly this is a key aspect. Sustainability is also about your business succeeding on the long term, and providing positive economic impacts through providing jobs and supporting local supply chains. There are also many social impacts enabled by providing good work and enabling people to develop skills and careers.

Carbon reduction is a good metric, and is supported by improving all environmental impacts such as bio diversity and waste reduction.



Cambridge English Dictionary:

The quality of being able to continue over a period of time.

This is a key aspect of business sustainability. An organisation must be able to continue to trade while improving their sustainability.

Otherwise a less sustainable alternative may be adopted by their customers in their absence.

The text book” definition is from the Brundtland Commission:

“..... development which meets the needs of current generations without compromising the ability of future generations to meet their own needs”

(WCED, 1987)

Sustainability Models

Models and frameworks provide useful ways of communicating sustainability, and bringing granularity to impact measurement.

There are many which we will list here and they progress in complexity. The remainder of this section will provide four alternative models. They can all be mapped to each other, so adopting one does not inhibit you from reporting against another, though the less granular your framework, the more work that will be.

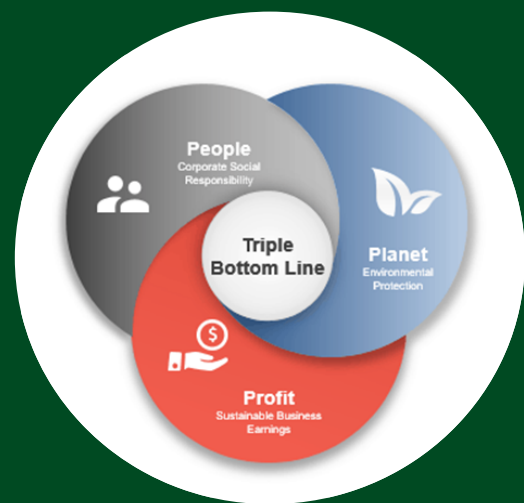
1. The Triple Bottom Line

This was very popular for a while but has since been suppressed by more detailed models, and has even been evolved to move profit to prosperity.

This recognises that many organisations have positive social, environmental and economic impacts if they are not for profit or making low profits.

“The triple bottom line wasn’t designed to be just an accounting tool. It was supposed to provoke deeper thinking about capitalism and its future.”

—John Elkington in his
Harvard Business Review article



2. ESG - Environmental, Social And Governance:

Environmental	Social	Governance
<ul style="list-style-type: none"> Climate action Resource depletion Waste Pollution Deforestation 	<ul style="list-style-type: none"> Human rights Modern slavery Child labour Working conditions Employee relations 	<ul style="list-style-type: none"> Bribery and corruption Executive pay Board diversity and structure Political lobbying and donations Tax strategy

ESG model from the United Nations Proponent of Responsible Investment (PRI)

Commonly used by investors and bankers, these criteria are used to support investment decisions by ethical funds.

Increasingly they are also used by investors as good business practice to drive better business outcomes and therefore financial returns.

Sustainable X Model



Extracted from a number of models, this adds a business focus to the key environmental, social and economic impacts of sustainability

Having a framework has helped us manage a lot of things that were difficult to pigeon hole. We now have clear measurement and accountability for sustainability in a structured way"

MD, Civil Engineering Contractor

United Nations Sustainable Development Goals

SUSTAINABLE DEVELOPMENT GOALS



Clearly the goals were written for governments, however businesses are key drivers of the necessary changes.

There are many benefits to using this model as your framework for sustainability. As it's a framework adopted by the UK Government, it is reflected in legislation and cascaded to local government so it's our agenda too.

It also provides a common language and focus to enable people to collaborate on sustainability issues more effectively.

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