BRIEFING NOTE FOR EXTERNAL AUDIENCES – ADAPTING TO CLIMATE CHANGE

Background

The climate is changing and the businesses we regulate are already being impacted by climate change. In 2021, the Climate Change Committee published evidence to underpin the UK's climate change risk assessment. They identified that *'despite the improving quality of risk assessments and approaches to assessing physical risk, there is still a lack of evidence of businesses acting to reduce the risks, including for low-likelihood, high-impact, indirect risks, and interdependencies'*

Risks, opportunities, and benefits of further action

More action needed
Further investigation
Sustain current action
Maintain a watching brief

Average UK wide scores

B1. Risks to business sites from flooding.

B2. Risks to business locations and infrastructure from coastal change from erosion, flooding and extreme weather events.

B3. Risks to businesses from water scarcity.

B4. Risks to finance, investment and insurance including access to capital for businesses.

B5. Risks to business from reduced employee productivity due to infrastructure disruption and higher temperatures in working environments.

B6. Risks to business from disruption to supply chains and distribution networks.

B7. Opportunities for business from changes in demand for goods and services.

(Image: CCC Business Brief)

Adapting to climate change is a priority and we want to support regulated businesses, so that they can cope with:

- an increased frequency and severity of extreme weather events as well as gradual changes to weather patterns causing unforeseen challenges
- disruption and failure of supply chains locally and globally because of climate change
- the increased risks from a mean global temperature rise of 2 °C by 2050 and 4 °C by 2100

Impacts on business performance and productivity are already happening and are set to increase, probably significantly. These impacts can also affect business's ability to comply with environmental standards. An example of gradual changes in weather patterns includes rising air temperature which may reduce the capability of some sensors to function properly all year round. And rising river temperatures, where there is little or no headroom to discharge cooling waters, before thresholds are exceeded and some aquatic species die.

Extreme weather events are more than just flooding, we will also face an increased risk of:
- heat waves and drought
- rise in sea levels and tidal surges
- storms and wildfires

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Future UK temperatures

- All areas of the UK are projected to experience warming

- Warming is greater in the summer than the winter

- Future rise depends on the amount of greenhouse gases the world emits

- The lowest scenario is compatible with aims to limit global warming since pre-industrial levels to below 2°C

- The highest scenario will likely require significant further adaptation

2061-2080, RCP8.5

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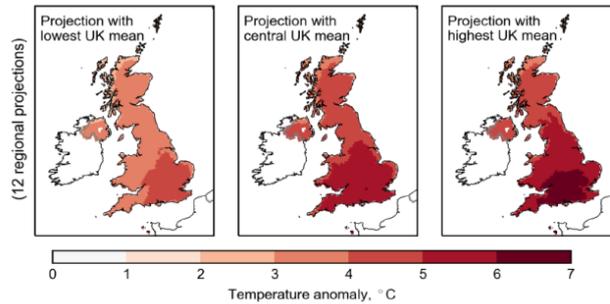
All of these will have an impact on business directly, in supply chains, for consumers and markets. Timely and appropriate actions can help businesses:

- remain compliant with an environmental permit and other regulatory obligations
- protect local communities (especially those who are socially vulnerable) and the environment from the combined effects of business operations and climate change
- improve resilience and business continuity by avoiding unplanned start-ups, shutdowns and other costly interruptions to operations

While some businesses may not be operating in 2050 or 2100, the climate has already changed, which makes businesses vulnerable to climate change impacts today. For those operating in the medium to long term, actions are still needed within the next few years to prepare for ever greater impacts in the future.

A recent Met Office report states that there is a 50:50 chance at least one of the next five year's will exceed 1.5°C warming (above pre-industrial levels). Leading to extreme weather events and the possibility of these happening in quick succession, for example as happened in February with Storms Dudley, Eunice and Franklin

The even more recent report by the met office on the annual State of the UK Climate report* contains some key messages:

- The UK's climate is continuing to change, recent decades have been warmer, wetter and sunnier than the 20th century.

- All of the UK's top 10 warmest years, in the time series from 1884, have occurred this century and most recently with the July heatwave breaking new records: UK heatwaves - BBC News

- While the year 2021 would be considered near normal compared to the last three decades, before 1990, a year like this would be the second warmest in the series.

- In 2021 specifically, UK temperatures and sunshine were near to the 1991 – 2020 average with rainfall slightly below.

Here, they take a look at how key UK climate variables in the most recent decade (2012 – 2021) compare to averages over the last 60 years.
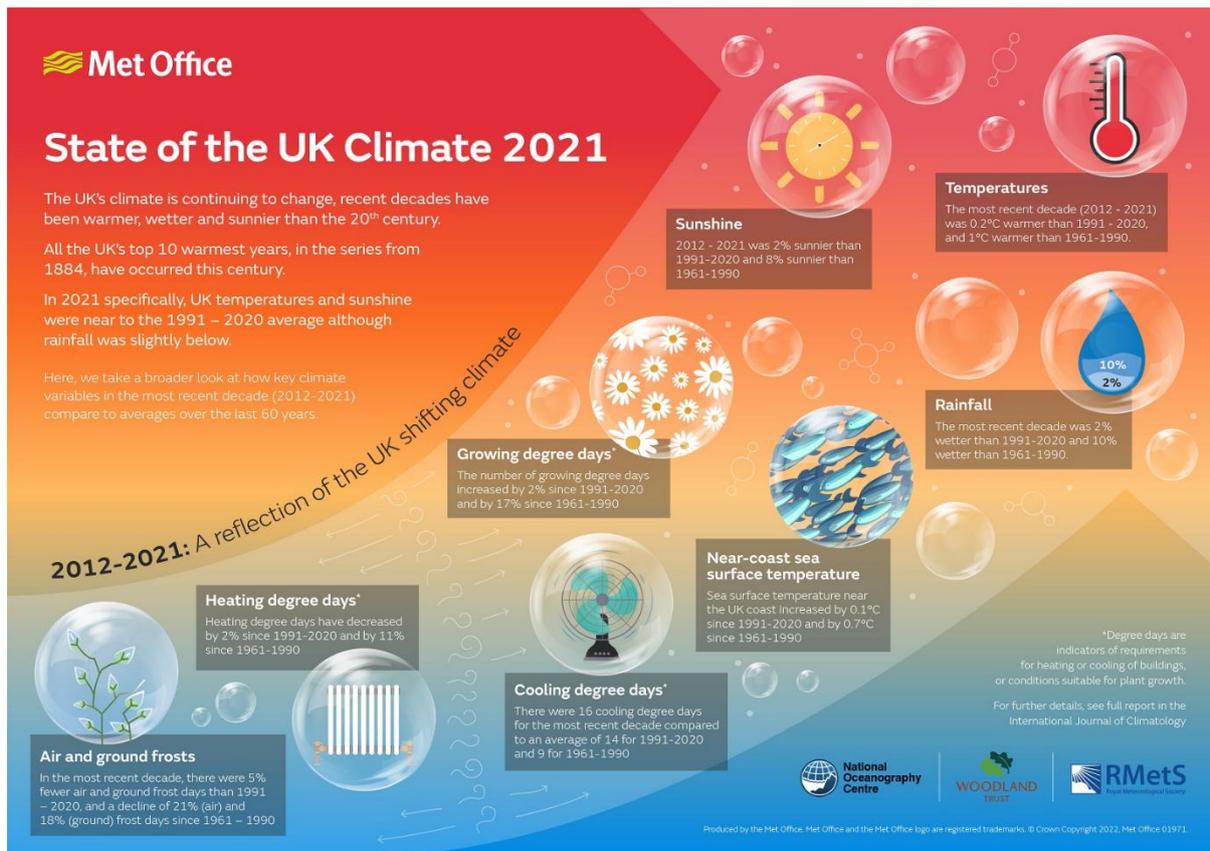
Why is climate adaptation necessary for regulated activities?
As a regulator our role is to protect local communities and the environment from the impacts of accidents, incidents, and permit breaches. We recognise that climate change increases these risks and that socially vulnerable groups will be the ones most severely affected.

Wildlife is suffering from habitat loss leading to reduced biodiversity and climate change could cause tipping points or thresholds to be reached both for people and for the environment. Non-compliance at regulated activities further amplifies these risks and accelerates the rate at which local thresholds could be reached.

We also recognise that there are other compliance requirements we do not regulate, which also need to consider climate change adaptation (land use planning and financial disclosure for example) and we are working across government and with other regulators to ensure we take a consistent approach which can be adopted to meet all regulatory needs.

In addition to being compliant, successfully managing climate risks also presents a number of other business benefits, which include:-

- **Increased business continuity**
- **Cost savings** - by understanding how climate risks impact operational performance, business can make better investment decisions which can manage or lower longer-term costs.
- **Reputation** - some banks and other lenders are becoming increasingly interested in the potential impacts of climate change on their investment portfolios. For example, 80 financial institutions are currently signatories to the Equator Principles, which includes the specific requirement to manage climate change risks as part of their performance standards.
- **Competitive advantage** - UK companies are often driven by opportunities to become more efficient, to reduce costs, and to provide greater value to customers
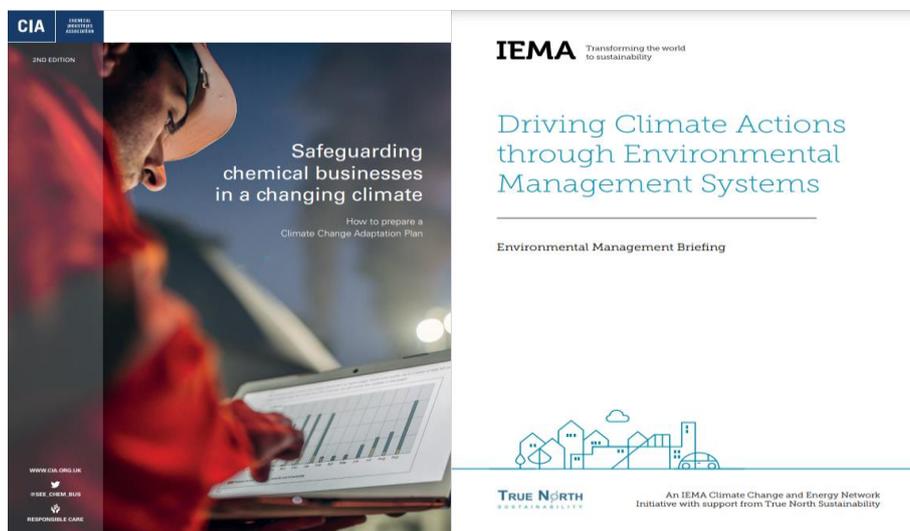
How can businesses successfully manage climate risks?
Management systems are an effective route to integrate climate adaptation into business policies, processes, governance, training, and decision-making. For those businesses regulated under the Environmental Permitting Regime, climate adaptation is included as part of an assessment of permit compliance. There are also sector specific examples of some of the common risks associated with climate change, which provide a useful starting point.

Climate adaptation is a 'thread' which runs throughout management systems. It does not lend itself to being presented as a single document or plan which is then approved or agreed by the regulator. This is because climate adaptation is dynamic, site specific, iterative, and continuously evolving as the science / our understanding and the evidence evolves. It touches on all areas of business including high level leadership, strategies, and policies through to routine operations and emergency plans. This requires sufficient competencies and assessments to understand the impacts on the business, how they are changing and may continue to change over the life of the installation and businesses need to put in place measures to manage any new or increasing risks.

Assessing climate risks and the potential impacts on local communities and the environment must be based on the latest independent technical and scientific information. These risks and impacts are dependent on a number of factors including:-
- the relative vulnerability of local receptors
- supply chain security
- interdependencies which could include overlapping risks or a reliance on others to take appropriate measures e.g. safeguarding transport networks or utilities.

Businesses should be considering today's operations and the current climate but more importantly they also need to consider their future operations including any plans to achieve net zero alongside a range of future climate scenarios, including unpredictable extremes. Climate adaptation should be at the forefront of decision making and especially in relation to things which have a lifetime of ten years or more and which could be hard or expensive to change e.g. new technology, long-term contracts, processes, staff skills or infrastructure.

To manage current and future climate risks, businesses should consider a range of actions and seek to maximise flexibility and minimise the potential impact on communities and the environment.

Many businesses already use ISO 14001 and they should consider adopting the ISO 14090 series on climate adaptation to help them to do this. There is also a helpful whitepaper that links the 2 standards. For businesses that do not have a certified Environmental Management System, the ISO 14090 series can still be used to guide the actions needed for improving future resilience.

Climate Adaptation Cycle
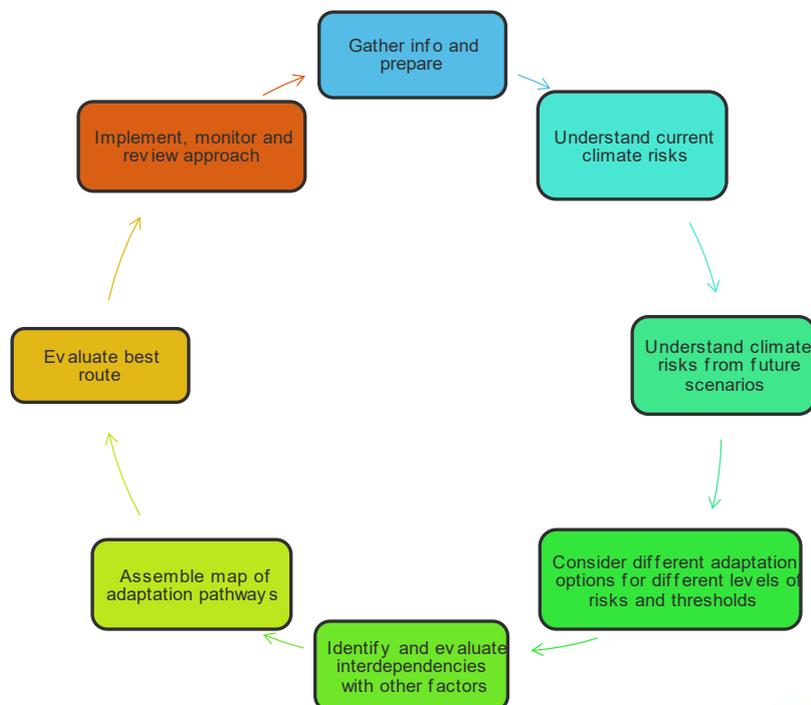
Adapted from figure 1 BS 8631

Note: this is just one example of an adaptation cycle.

What next?

We are seeking partners and organisations who want to work with us on some or all of the following:-

- to raise awareness amongst industry and the regulated business community of the need to carry out climate adaptation and to explain why this is important

- to provide support in the form of tools, CPD, signposting, guidance and advice for industry and businesses to help them carry out effective climate adaptation and engagement with their local communities

- to actively promote early adopters and use their experiences and shared learning to help motivate and encourage others across industry and the regulated business to act.

We need to act faster than the climate is changing. We need to move at pace. We need to embed climate adaptation into all that we do to ensure and maintain resilience.

If you can offer help or would like to discuss any of the above with us, then please get in touch via your usual contacts or sector leads.

FEBRUARY 2021

ISO

ISO WHITEPAPER

HOW TO USE ISO 14090 TO SUPPORT ADAPTATION TO CLIMATE CHANGE IN AN ISO 14001 ENVIRONMENTAL MANAGEMENT SYSTEM