

A large green circular logo on the left side of the slide. Inside the circle is a white stylized figure of a person with arms raised, holding a large green cloud-like shape above their head. The figure's legs are spread apart, and the overall shape is reminiscent of a peace symbol or a person celebrating.

Hazard Management in a Fast Changing World

Paul Wright; Environment Agency

Challenges of a fast changing world



Source: UN.org



The scale of the challenge



**Climate-related issues
dominated all of the
top-five long-term
risks in terms
of likelihood**

Global Risks Report 2020

Source: World Economic Forum



TOP GLOBAL RISKS

From economic to environmental. Climate now tops the risks agenda, while the economy has disappeared from the top five.



Source: World Economic Forum

Our response: EA 2025



Source: Environment Agency

<https://youtu.be/p7ahdhj-QzI>



EA 2025
A NATION RESILIENT
TO CLIMATE CHANGE



EA 2025
HEALTHY AIR,
LAND AND WATER



EA 2025
GREEN GROWTH AND
A SUSTAINABLE FUTURE

Regulating Innovation in a Fast Changing World: The Climate Challenge

Green Economy

creating a level playing field with Best Available Techniques, engaging with new technology proposals

Energy Efficiency and Resource Efficiency

management systems, heat integration, regulation of carbon intensive industry

Greenhouse gases

refineries and oil & gas, refrigerants. Reducing production of methane, fugitives and leaks

Climate Change Impacts

adaptation & resilience, managing hazards

Nuclear – mitigation – part of a low carbon energy system

Adaptation – Joint work with ONR eg FCRM principles for new build, Joint statement on UKCP18 etc

Hydrogen

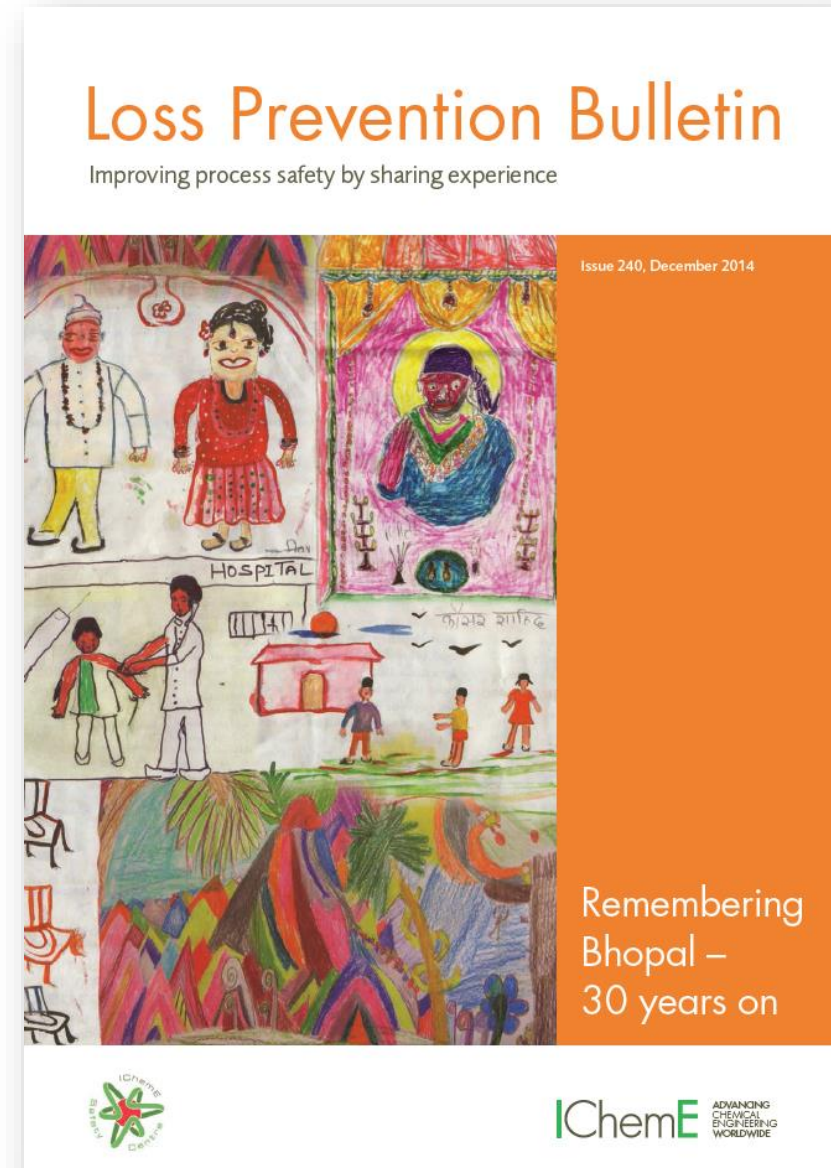
blue and green hydrogen and regulatory requirements

Carbon Capture, Utilisation & Storage

Sustainable development – planning, local and national (DCO)

Learning from the past

- Lessons from multiple sectors and challenges
- Affect a wide range of 'major hazards' sectors (not all expected)
 - Process Industries
 - Nuclear
 - Energy & Power
 - Critical Infrastructure
 - Wider learning where applicable e.g. aviation, rail and construction



Source: IChemE LPB

Applying lessons to the future

- We need guidance to ensure resilience
- Do we understand the impacts from climate change for all at risk sites?
 - MAH's
 - Challenges to layers of protection
 - Potential impacts to people and the environment
- Are those managing MAH risks prepared - to prevent major accidents?
 - **NOT FORGETTING...**
maintaining existing infrastructure



Source: US CSB

‘Must Haves’ to meet the needs of a fast changing world

- Some depressingly common features that we struggle to get right now
- Two key areas:
 - LEADERSHIP
 - within organisations
 - external
 - COLLABORATION
 - across industry players
 - between regulators, industry and the public

IChemE opens consultation on Climate Change position



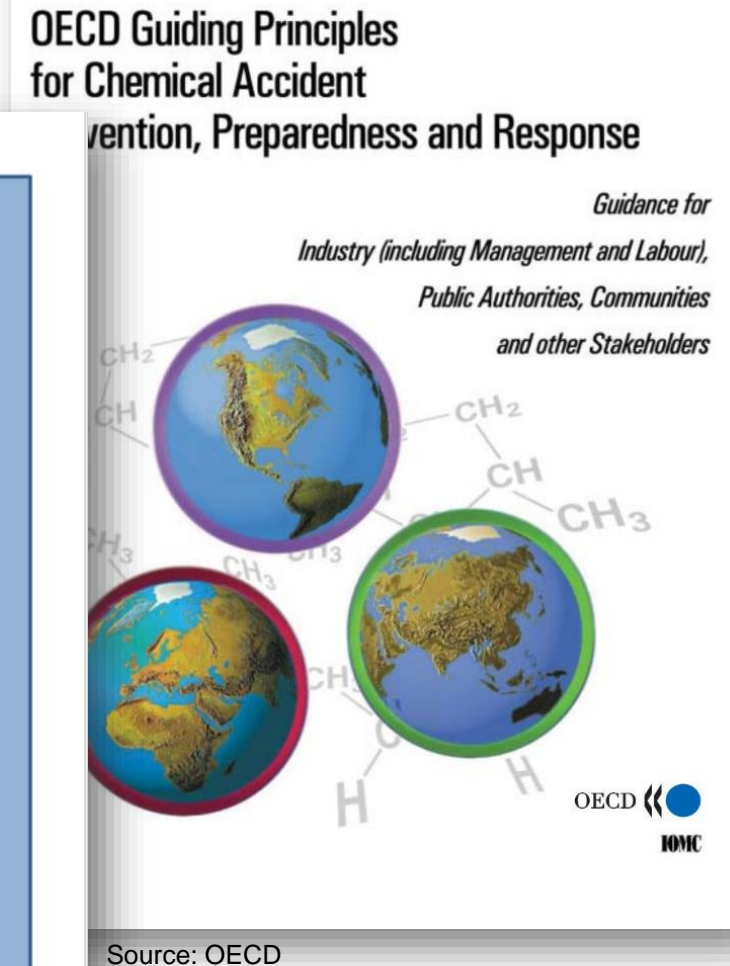
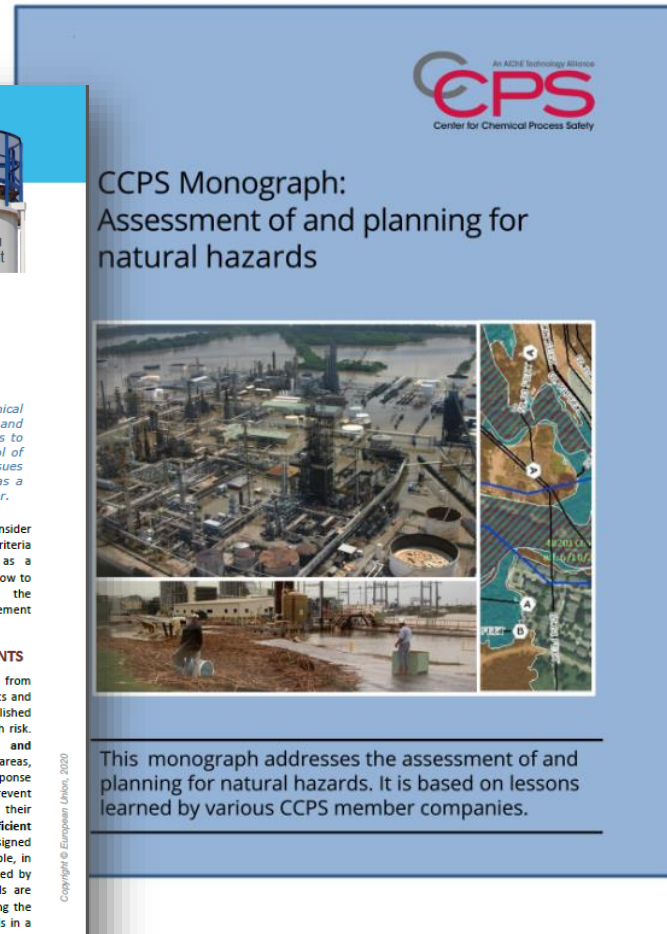
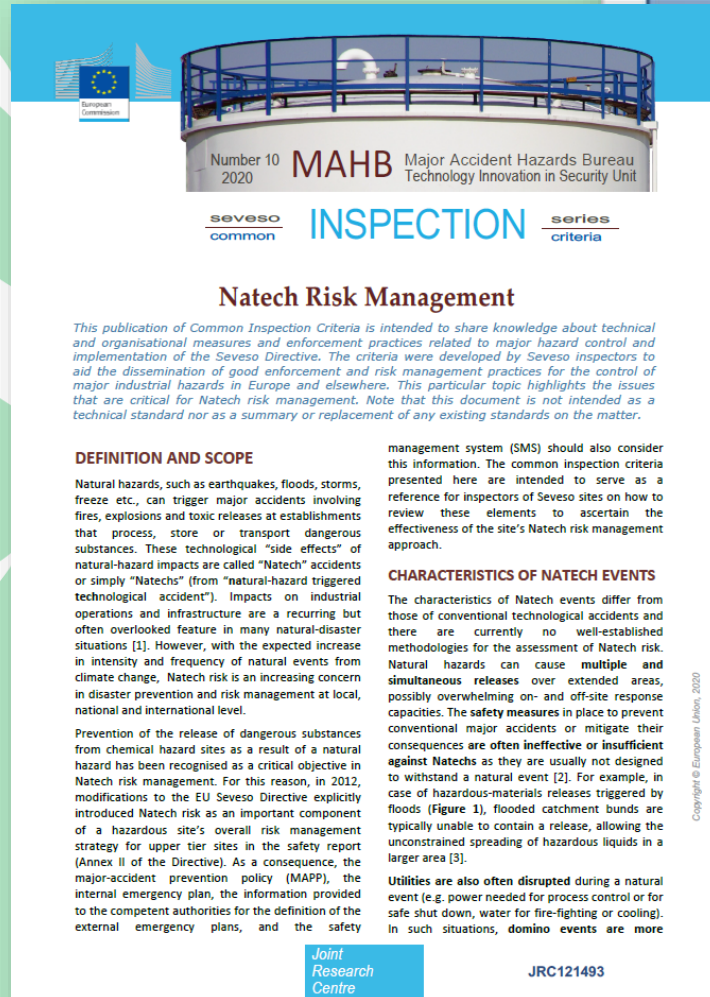
6TH JULY 2020

The Institution for Chemical Engineers (IChemE) has today launched a consultation on its [climate change position statement](#). The consultation will give IChemE members the opportunity to provide feedback on the draft statement which details the Institution's commitments in this important area.

IChemE's position on climate change is founded on a number of principles as stated within the document which also includes further context on what climate change means for IChemE members and wider society. The Institution seeks to take a leadership role in tackling climate change, working with all stakeholders, from governments to communities around the world, to deliver a fair, safe and sustainable future in which we can all thrive.

Source: IChemE

Collaborative working



What's your role in responding to a changing world and a changing climate?



Questions?