

IChemE



IChemE Safety Centre

2024 Annual Report



A safe workplace is a basic human right

The IChemE Safety Centre is proud to mark its eleventh anniversary in early 2025. It is central to IChemE achieving its vision of Engineering a Safer and Sustainable World.

Since its establishment in January 2014, the IChemE Safety Centre has seen impressive growth. Six founding partners came together with a bold vision: to establish a new framework for process safety, anchored in leadership across six crucial areas.

These areas – knowledge and competence, systems and procedures, human factors, engineering and design, assurance, and culture – are universally applicable across industries and throughout the business lifecycle. Recognising this universality, the founders embarked on a powerful learning journey. The IChemE Safety Centre championed the concept of “sharing for safety” across diverse industries.

Fast forward to late 2024, the IChemE Safety Centre now boasts a vibrant network. Our membership includes 59 operating and industry partners, along with 56 esteemed supporting partners and collaborators from academia, government, and other process safety centres of excellence.

This report highlights the values and behaviours that have driven the IChemE Safety Centre over the past decade and sets the stage for further success. As the inaugural Director, Trish Kerin, moves on to new adventures, we thank her for her huge achievement in putting the IChemE Safety Centre on the map and the significant positive impact she has helped create.

The IChemE remains firmly committed to the growth and on-going development of the IChemE Safety Centre, seeing process and wider systems safety as central to everything we do. As the IChemE Safety Centre now continues its journey, driven by Interim Director Deborah Grubbe, the Chair of the IChemE Safety Centre Advisory Board Marlene Kanga, the Trustees of IChemE and a new Director in 2025, we invite others to join us, championing our collective belief that safety is a shared responsibility and that together, we can create safer processes and workplaces for all.



Mark Apsey MBE
President, IChemE



Dr Marlene Kanga AO
Chair, IChemE Safety Centre
Advisory Board

Membership

Operating partners

These companies are represented on the IChemE Safety Centre's Advisory Board. They help set the strategic direction for the Centre. The IChemE Safety Centre Advisory Board is chaired by Dr Marlene Kanga.

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|-------------------------|--------------------------|----------------------------------|
| ■ AirServices Australia | ■ ExxonMobil | ■ Santos |
| ■ Alcoa of Australia | ■ Fonterra | ■ Scottish Water |
| ■ Ampol | ■ Fortescue Metals Group | ■ Shell |
| ■ APA Group | ■ Jemena | ■ Snowy Hydro |
| ■ Aramco | ■ LanzaTech | ■ Suez Recycling and Recovery UK |
| ■ AstraZeneca | ■ Methanex | ■ Todd Corporation |
| ■ BHP | ■ Newmont | ■ Viva Energy |
| ■ BP | ■ Oji Fibre Solutions | ■ Wessex Water |
| ■ Chevron | ■ Orica | ■ Woodside |
| ■ CS Energy | ■ Origin Energy | |
| ■ EnQuest | ■ Rio Tinto | |

Industry partners

Employees from these companies are invited to play an active role in the IChemE Safety Centre's working groups.

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| ■ ACT | ■ HIMA | ■ R4Risk |
| ■ Arup | ■ ioMosaic | ■ PSRG |
| ■ Aurecon Group | ■ Incident Analytics | ■ RAS Limited |
| ■ CNA Hardy | ■ Industry Risk Control | ■ Risk Consult |
| ■ Dekra | ■ IRESC | ■ Salus Technical |
| ■ ERM | ■ Jensen Hughes | ■ Safety Solutions |
| ■ Exida | ■ KBR | ■ Sherpa Consulting |
| ■ FM Global | ■ MicroRisk Group | ■ Vanguard Solutions |
| ■ Gexcon | ■ Neodyme Australia | ■ Worley |
| ■ GHD Advisory | ■ PDV Consultants | ■ Yokogawa Corporation of America |
| ■ Global Industrial Safety Solutions | ■ Process Risk Consulting Ltd | |
| | ■ Process Safety Verification | |

We are a values-based organisation

The IChemE Safety Centre is a leading organisation in process safety, driven by a commitment to excellence and ethical principles. Guided by the core values established by its advisory board, the IChemE Safety Centre ensures that all its activities align with these principles. The organisation strives to maintain the highest standards globally, emphasising continuous improvement and collaboration. By prioritising partnerships and keeping its commitments, the IChemE Safety Centre fosters a culture of respect, trust, and innovation.

Supporting partners

These organisations are invited to participate in IChemE Safety Centre activity and support our work.

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| ■ Aston University | ■ Oil and Pipelines Agency | ■ University College Cork, Ireland |
| ■ Civil Aviation Authority of New Zealand (CAA) | ■ Petroleum Safety Authority Norway | ■ University College Dublin |
| ■ Latinamerican Council for Process Safety (CSP) | ■ Purdue Process Safety & Assurance Center (P2SAC) | ■ Università degli Studi Dell'Insubria |
| ■ Dalhousie University | ■ Queen's University Belfast | ■ Università di Bologna |
| ■ Drexel University | ■ Queensland University of Technology (QUT) | ■ University College London |
| ■ Fujairah Oil Industry Zone (FOIZ) | ■ RMIT University | ■ University of Greenwich |
| ■ Government of South Australia | ■ SafeWork NSW | ■ University of Leeds |
| ■ Heriot-Watt University | ■ Singapore Institute of Technology | ■ University of Limerick |
| ■ Institute of Sustainability for Chemicals, Energy and Environment (ISCE2) | ■ Texas A&M University Corpus Christi | ■ University of Manchester |
| ■ Ministry of Environment and Food of Denmark | ■ Universiti Teknologi Petronas | ■ University of Melbourne |
| ■ Michigan Tech | ■ University of Aberdeen | ■ UNSW Sydney |
| ■ Monash University | ■ University of Adelaide | ■ University of Patras |
| ■ Munster Technological University | ■ University of Alberta | ■ University of Sheffield |
| ■ Newcastle University | ■ University of Auckland | ■ University of Southampton |
| ■ Norwegian Directorate for Civil Protection | ■ University of Bath | ■ University of Strathclyde |
| | ■ University of Bradford | ■ University of Surrey |
| | ■ University of Canterbury | ■ University of Toronto |
| | | ■ University of Western Australia |

Collaborators

The IChemE Safety Centre seeks to collaborate with other Safety Centres across the world and has agreements in place with:

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| ■ Mary Kay O'Connor Process Safety Center (MKOPSC) | ■ Centre of Advanced Process Safety | ■ Energy Institute (EI) |
| ■ Center of Safety Excellence (CSE) | ■ Jordan Engineers Association (JEA) | ■ Step Change in Safety (SCiS) |

A year of progress and delivery

Updated guidance

The *Effective revalidation of risk assessments – Delta HAZOP* guidance document was updated to incorporate climate change impacts and it will be released early 2025.

Ongoing projects

The *Management of Change* (MOC) project will produce a comprehensive industry guidance document on change management, emphasizing a thorough evaluation of key components within the assessment process, with emphasis on understanding the cumulative implications of change, including the concept of creeping change. The primary objective is to provide practical insights into the application of these principles and to outline the essential leadership behaviours crucial for ensuring effective implementation and execution of the MOC process.

The *Transient Operations Risk Assessment* project will produce guidance to assist companies to plan and undertake Transient HAZOP where appropriate.

Process safety leadership and culture programme

Since the development of the process safety executive education programme this has been run over 65 times and involved over 750 participants. This continues to run successfully around the world both in public courses and customised in company delivery and will continue next year.

Interactive learning

The IChemE Safety Centre developed a thirteenth case study Changing Moment. This case study explores what happens when change is not adequately managed and how the competence of the people involved impact the outcomes.

Membership and social media growth

The IChemE Safety Centre began in 2014 with 6 members and membership has grown steadily over time. However, 2024 saw the membership grow from 104 members to 120, an increase of over 14%.

Anniversary videos

Since 2020, IChemE Safety Centre have produced a range of incident anniversary videos targeted towards a social media audience. We continue to produce these short videos across 2024. The content continues to be well received. Our social media impact continues to grow month on month.

International Process Safety Week

In 2023, the Center for Chemical Process Safety (CCPS), IChemE Safety Centre, Mary Kay O'Connor Process Safety Center (MKOPSC), Fire & Blast Information Group (FABIG) and the European Process Safety Centre (EPSC) announced plans for an annual international event raising process safety awareness.

The inaugural International Process Safety Week took place from 2-6 December 2024 with excellent feedback from those involved. The IChemE Safety Centre, along with the IChemE Loss Prevention Bulletin and the IChemE Safety and Loss Prevention Special Interest Group made important contributions including sharing of thought leadership and best practices in process safety from around the world.

Webinars

On 1 June 2024, the IChemE Safety and Loss Prevention Special Interest Group and the IChemE Safety Centre delivered a joint webinar on the Legacy of Flixborough, featuring Dame Judith Hackitt, Ken Rivers Robin Turney and Ramin Abhari.

Other activity

As we continue to develop member offerings, we will continue to provide our IChemE Safety Centre member only conference and networking opportunities for members to meet and discuss process safety.

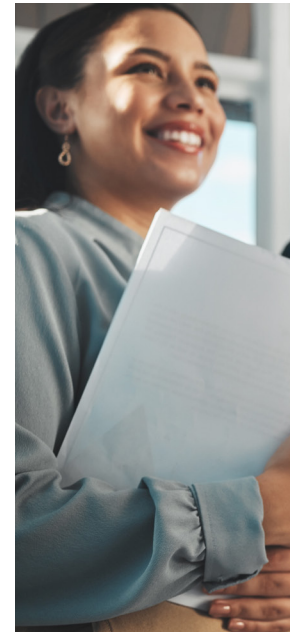
Next steps for the IChemE Safety Centre

The IChemE Safety Centre is central to IChemE's Strategy 28+ and its vision of Engineering a Sustainable World. We will build on the IChemE Safety Centre's solid foundations and success to ensure it remains your go-to safety partner, understanding your needs and supporting your business. Our strategy of developing, interpreting, and implementing safety system knowledge will keep our members' needs at the centre of our work, maximising safety, operational and business benefits.

We will ensure the IChemE Safety Centre increases its reach and impact still further – serving society by ensuring that process safety approaches are shared more widely across all sectors, enabling more to benefit from process safety lessons learnt and look at safety through a holistic, systems thinking lens. We will share knowledge generously with new sectors and partners, building capacity and capability and ensuring that together we are creating a safer world.

We will build on existing collaboration with organisations such as the Center for Chemical Process Safety, the European Process Safety Centre, the Mary Kay O'Connor Safety Center and the Energy Institute, and look to build new partnerships and collaborations where practitioners and society can benefit. We will ensure that members can benefit from all that IChemE offers – working together to raise standards across the board. This includes promoting Professional Process Safety Engineer (PPSE) as a pathway for those in safety to demonstrate and continually improve their knowledge and skills and working closely with groups such as the IChemE's Safety and Loss Prevention Special Interest Group to ensure all those working in safety roles know of the support available.

We thank those organisations which are already part of the IChemE Safety Centre and look forward to forging even stronger partnerships as we move ahead. We also look forward to welcoming other organisations looking to benchmark their performance, share their knowledge and experience and drive forward safety for the benefit of all. We look forward to hearing from you.



Please get in touch



www.ichemesafetycentre.org
safetycentre@icheme.org

