

The IChemE Safety Centre

2018 Annual Report

Not getting hurt is a basic human right

People have a right to not get hurt, no matter where they are. Sadly, the high hazard industries have not always measured up against this moral imperative and the Institution of Chemical Engineers (IChemE) recognises that eternal vigilance, proactive learning and constant improvement are the price of outstanding safety performance. This was the driving force that catalysed the idea of a new IChemE Safety Centre (ISC) at the beginning of the decade.

The centre will celebrate its fifth anniversary at the beginning of next year. It has grown rapidly from its modest beginnings back in January 2014 when six founding partners came together with the aim of creating a new framework for process safety built around leadership across six functional areas.

- Knowledge and competence
- Systems and procedures
- Human factors
- Engineering and design
- Assurance
- Culture

These areas apply to all industries, at all points in the business life cycle. In acknowledging this proposition, the founding partners unlocked a powerful learning process and the ISC began to explore and develop the concept of sharing for safety across different industries.

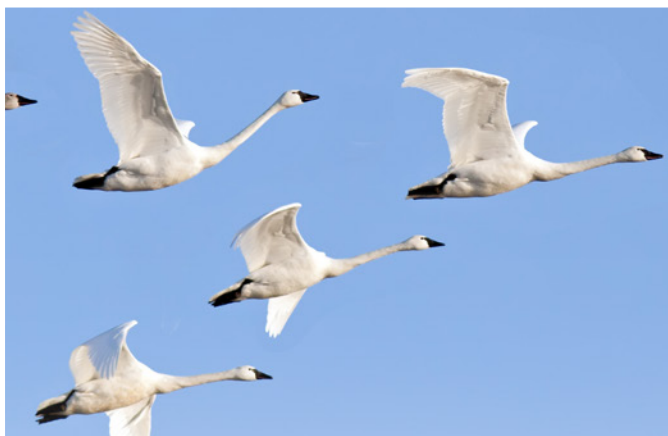
Today, as 2018 draws to a close, the ISC provides a dynamic network for 35 companies, along with a further 31 supporting partners and collaborators from academia, government and other process safety centres of excellence. In late 2017 Dr Zsuzsanna Gyenes joined the ISC as the deputy to the director, covering the Europe, Africa, Middle East region.

This short report expands on the values and behaviours that underpin our work. It describes our achievements to date and it sets our ambitions for the years ahead. IChemE does not have a monopoly on wisdom and we recognise that safety is not proprietary; that's why the centre aims to share best practice and encourage others to do likewise. Join us on the journey to process safety excellence at the ISC.

Stay safe.

Trish Kerin

Trish Kerin
Director, ISC
September 2018



Membership

Operating Partners

These companies are represented on the ISC's advisory board. They set the strategic direction for the centre

- AusGrid
- BHP
- BP
- Chevron
- Conoco Phillips
- ExxonMobil
- Orica
- Origin Energy
- Petronas
- PTTEP Australasia
- Quadrant Energy
- Rio Tinto
- Santos
- Shell
- Todd Corporation
- Unilever
- Viva Energy Australia
- Woodside

Industry Partners

Employees from these companies play an active role in the centre's working groups

- Acting Consulting Training
- AMOG Consulting
- Advisian
- Dekra Insight
- ERM
- HIMA
- ioMosaic
- Industry Risk Control
- IRESC Global
- KBR
- Kelvin TopSet
- PDV Consultants
- Process Safety Verification
- Risk Consult
- Safety Solutions
- Sherpa Consulting
- WorleyParsons

Supporting Partners

These organisations are invited to participate in ISC activity and support our work

- Civil Aviation Authority of New Zealand
- CSP
- Dalhousie University
- Institute of Chemical & Engineering Sciences (A*Star)
- Ministry of Environment and Food of Denmark
- Michigan Technological University
- Monash University
- Newcastle University
- Purdue Process Safety & Assurance Center
- Queensland University Technology
- RMIT University
- SafeWork NSW
- Singapore Institute of Technology
- Universiti Teknologi Petronas
- University of Adelaide
- University of Auckland
- Università di Bologna
- University of Canterbury
- University College Cork
- University of Limerick
- University College London
- University of Manchester
- University of Melbourne
- University of New South Wales
- University of Patras
- University of Sheffield
- University of Strathclyde
- University of Surrey

Collaborators

ISC seeks to collaborate with other safety centres and has agreements in place with these organisations.

- Mary Kay O'Connor Process Safety Center
- Center of Safety Excellence
- Centre of Advanced Process Safety

We are a values-based organisation

ISC's operation is guided by a series of underlying values. These have been agreed by our advisory board. All work programmes and activities are benchmarked against these values.

ISC is a thought leader in process safety for the simple reason that creating a world in which the highest standards in process safety are maintained everywhere, at all times, and is absolutely the right thing to do. ISC strives to do what is right and we always want to do things better today than we did yesterday. Our expectations are high and we constantly seek continuous improvement. We will collaborate with others whenever it is appropriate to do so. Process safety depends on partnership and we will respect our partners by keeping our promises and doing what we say we will do.

A year of progress and delivery

Work programmes are planned and delivered by a series of working groups with leadership drawn from the ranks of ISC partners. Over the last year, the groups have focused on a range of projects and topics.

New guidance

The second edition of the competency document was launched in April and this incorporated feedback on the roles, competency matrix and competency definitions from the original document which was issued in 2015. The first edition of Learning Outcomes was released in April 2018. The project aimed to determine industry's expectations on process safety education at undergraduate level. This document covers industry's expectations and highlights some information and resources that universities can use to meet them.

Ongoing projects include developing guidance on how to implement lead metrics. This metrics work will support the ISC in driving consistency in reporting. There is also further development of resources to assist universities in teaching process safety as well as guidance on how to build competency. Next year we intend to launch a web portal on our new website with a range of useful links.

Interactive Learning

The centre developed a fifth case study Lift Off and this focuses on ethical decision making. The sixth case study, Tidal Wave was launched at Hazards28 in Edinburgh and it focuses on natural events resulting in technological incidents. ISC has received a donation to develop a further three interactive case studies with two of the three planned by the end of 2018.

Future of Process Safety

In October 2017, ISC along with the Mary Kay O'Connor Process Safety Center, launched the document "Process Safety for the 21st Century and Beyond" at both the World Congress for Chemical Engineering and the MKOPS Symposium. A workshop on the document was run at Hazards28 in Edinburgh and conversations focused on how to make the suggested actions a reality.

Safety Lore

ISC launched the first issue of the Safety Lore in March 2018. The aim of the publication is to highlight safety issues with different processes and operations and derive the key learning points that ensure operators and process safety engineers learn from past incidents rather than repeating them. The Lore introduces two case studies that occurred in the past, stressing the key learnings. Furthermore, it illustrates the significance of the presented topic, demonstrating such events via statistics. The major part of the Lore is the so-called "What can I do" session that presents the major safety challenges and what to do to prevent the occurrence of similar incidents in the future. The ISC believes that presenting such cases and potential suggestions will help the industry to improve process safety. This is also available in a Spanish download as well as an English podcast.

Safety and the next generation

ISC will be working to develop useful resources that will be made available to interested academic institutions.

Other activity

To mark the 20th anniversary of the Longford incident, the ISC has undertaken a range of initiatives. The August edition of Loss Prevention Bulletin contained articles by Trish Kerin, ISC Director, Dr Zsuzsanna Gyenes ISC Deputy Director and Margaret Donnan ISC Chair on reflections of Longford; and the September edition of The Chemical Engineer contained an article where Trish Kerin interviewed Professor Andrew Hopkins. In addition, Margaret Donnan and Trish Kerin, ISC are preparing to take part in the Longford event which is being run by the regulator, WorkSafe Victoria in November 2018.

Our process safety executive education programme continues to run successfully around the world both in public courses and customised in company delivery and will continue next year. This demonstrates the interest level for directors and senior executives to ensure they understand their due diligence requirements.

As we continue to develop member offerings we will continue to provide ISC member only webinars and networking opportunities for members to meet and discuss process safety.

Where do we go from here?



The IChemE Safety Centre is committed to continuing to develop and share useful resources in process safety so that everybody, no matter where they are can access the information they need to play their part in improving process safety outcomes. Because nobody should get hurt, anywhere, ever.

We welcome your support and input to our valuable work. Please contact us if you would like more information on the ISC, its work or how it may add value to your organisation.

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