

Chemical Accidents Risk Seminar

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Process & Plant Safety

A Matter of Governance



2011:

OECD *Guidance Corporate Governance for Process Safety*

Cefic *Guidance on Process Safety Performance Indicators*

2016:

ICCA *Guidance for Reporting on the ICCA Globally Harmonized Process Safety Metric*

Next:

OECD: *Developing Guidance for Ownership Change in Hazardous Facilities*

Effective Process Safety Management

A matter of good Governance

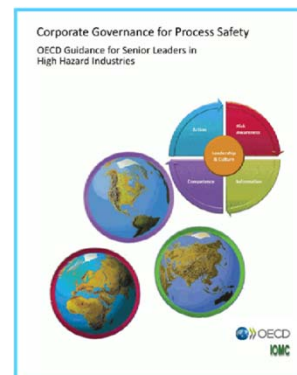


2011

➤ Leaders need to understand risks:

- ✓ Major accidents as credible business risks
- ✓ The integrated nature of major hazard business/supply chain
- ✓ Process Safety having equal focus to other business processes

➔ Since several years good direction is given through OECD and Cefic Guidance Documents



Despite all efforts, incidents continue to occur



2005 Buncefield, UK:
Biggest explosion in
peacetime



2005 Texas, USA:
15 killed, 170 injured



2016 BASF, Germany:
4 Fatalities, 29 injured



Leaders need to change from active to PRO-active

You cannot improve what you do not measure

Several Databases track incidents across the globe



**INRS**


The French national research institute for safety (INRS) holds the EPICEA database, which provides 17 000 detailed "workplace accidents".

**ERA – European Railway Agency**


The european railway agency publishes reports on railway accidents in europe (in english).

**Hazards Hint Intelligence**

ILITY (Finlande)
The finish database ILITY gathers accidents worldwide ("database" in english, but without any search engine).

**FACTS (Pays-bas)**

FACTS is a database which contains information on more than 24000 (industrial) accidents (incidents) involving hazardous materials or dangerous goods worldwide. (restricted access)

**ZEMA**

The ZEMA database (Zentrale Melde- und Auswertestelle für Störfälle und Störungen in verfahrenstechnischen Anlagen) centralises informations on accidents in Germany. The database is in German.

**ARIA : Lessons learnt from industrial accidents**
Collect, analyze, inform

ARIA
d g p r e r t b a r p l

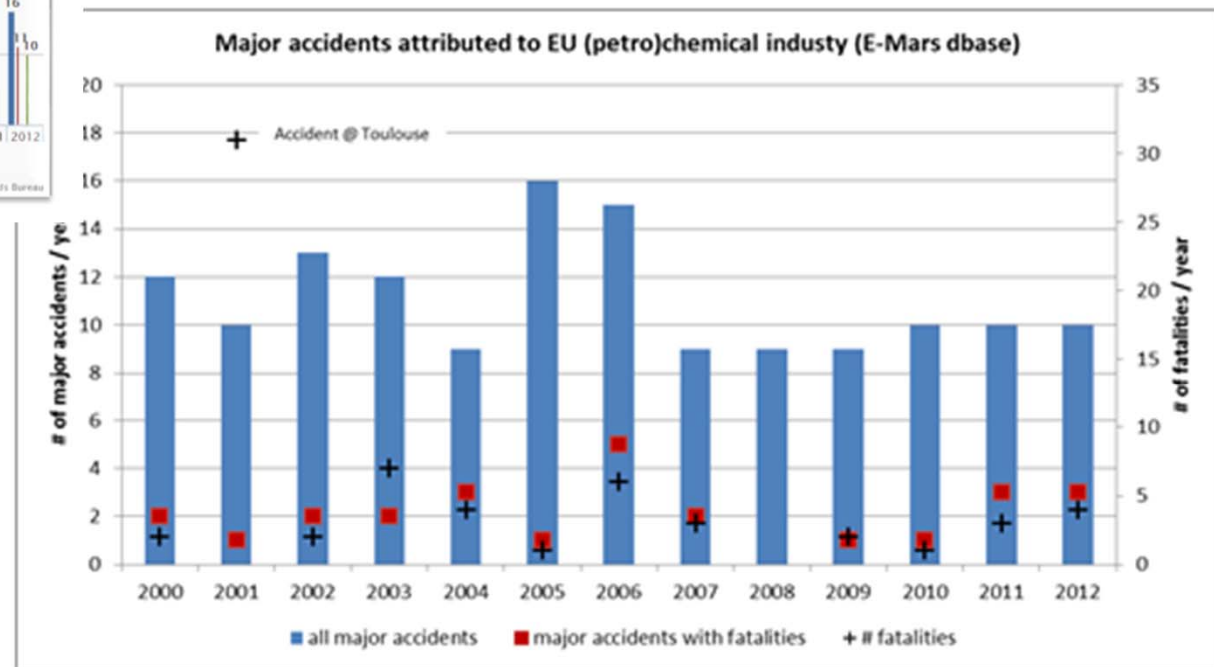
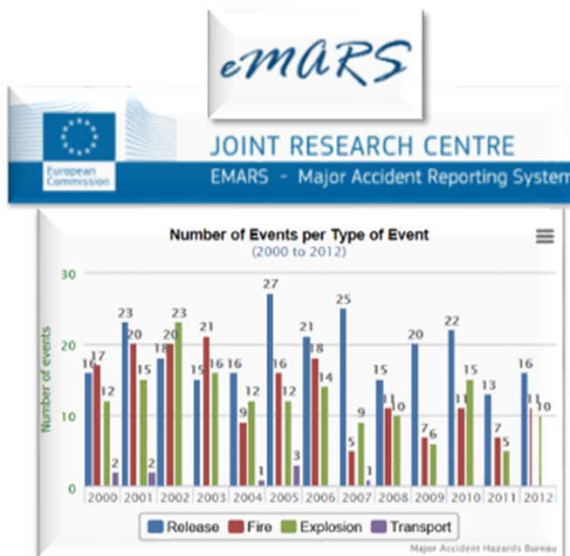
**NTSB**
An Independent
United States Federal
Government Agency

**Beacon**
Process Safety

**CSB**
U.S. Chemical Safety Board

**RISCAD**
Relational Information System for
Chemical Accidents Database

In Europe JRC's eMARS Database tracks severe process safety incidents



Number of severe incidents stagnates

Summary of Status Quo



Several Databases

BUT no comprehensive overview

EU-wide reporting

BUT not up-to-date

Completeness questionable

Counting of incidents

BUT no “indicators”

Tracking of trends impossible

Reacting rather than acting

No link between occupational and
process-safety related incidents

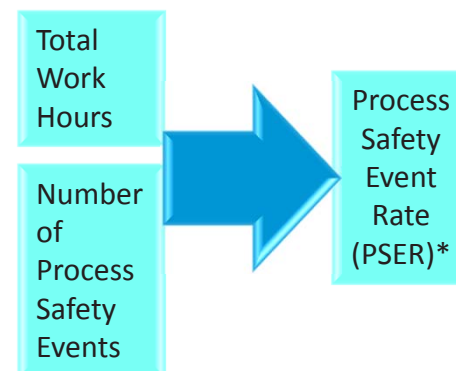
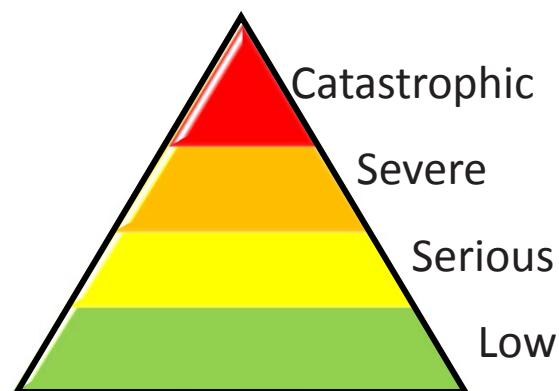
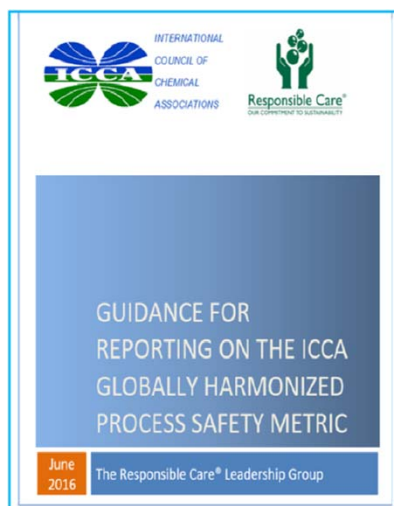
Today we manage a system which allows us to follow
But not to be PROACTIVE

ICCA Guidance issued in 2016: Comprehensive database across EU



2016

- Comprehensive reporting of process safety incidents
 - **Bottom-up** approach
 - all member companies to report
 - Develop Indicators (PPS KPIs)
 - independent of participation
 - Leading instead of lagging
 - discover trends
 - Usings⁺ RC database
 - build up on existing structure



Low level threshold of reporting → early indication

Our Targets



- Comprehensive reporting of incidents to improve process safety
- National Associations are in the lead:
 - Start/continue setting up national reporting
 - Initiate national workshops with member companies
- ALL Companies:
 - Start/continue providing data to your national association
- CEFIC: Program Council (PC) HSSE endorses the reporting
 - Request reporting to PC, NAB and AFEM meeting on a quarterly basis

Comprehensive Reporting Starts NOW
Reporting established by 2020

ICCA Reporting Schedule 2016-2020



Appendix D - Detailed Schedule of Events

2016	2017	2018	2019	2020
<p>Feb - April <i>RCLG PS Pilot Program</i></p> <p>May – Adjustments/clarification to guidance document</p> <p>June Report outcomes of pilot program to RCLG and ICCA Board</p> <p>July - December</p> <ul style="list-style-type: none"> RCLG associations consider guidance and develop reporting methodology for their memberships RCLG associations can request ICCA capacity building funds for PS reporting workshops for members, if needed 	<p>Jan - Dec RCLG Association membership begin collecting PS data from their members</p> <p>Jan – Dec Associations hold workshops on Process Safety and performance reporting, utilizing RCLG funds and experts if needed</p>	<p>Jan – Feb Reporting of process safety incidents to RCLG begins for associations with data (2017 data)</p> <p>April RCLG reviews outcomes, challenges and raw data from the first reporting cycle (internally)</p> <p>June RCLG share draft data with ICCA Board</p> <p>July - December Update and adjust guidance as necessary</p> <p>Associations hold workshops on Process Safety and performance reporting, utilizing RCLG funds and experts if needed</p>	<p>Jan – Feb Reporting of process safety incidents to RCLG begins for associations with data (2018 data)</p> <p>April RCLG reviews outcomes, challenges and raw data from the second reporting cycle (internally)</p> <p>June RCLG share draft data with ICCA Board</p> <p>July - December Update and adjust guidance as necessary</p> <p>Associations hold workshops on Process Safety and performance reporting, utilizing RCLG funds and experts if needed</p>	<p>Jan – Feb Reporting of process safety incidents to RCLG begins for all associations</p> <p>Process Safety incident reporting becomes part of the recommend base set of RCLG KPI metrics (2019 data)</p> <p>April RCLG reviews outcomes, challenges and raw data from the second reporting cycle (internally, consider external reporting)</p> <p>June RCLG share draft data with ICCA Board</p>

Comprehensive Reporting Starts NOW
Reporting established by 2020

OECD has issued a draft guidance on ownership change transactions



NEXT

Suggestion of a self-assessment:

SELF-ASSESSMENT QUESTIONS FOR THE EXISTING/ CURRENT OWNER			
<p>The original owner needs to focus on their legal responsibilities to hand over a plant and site with the potential for a major accident which could harm the workforce, the surrounding factories, people living nearby and the environment. The checklist gives a series of pointers to fulfilling their responsibilities. These may be greater but more easily fulfilled if the plant has been openly offered for sale. This may be more difficult with a hostile takeover where there has been little time or incentive to prepare.</p>			
Planning Phase	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>1. Have you determined which information you should provide to the new owner to assure continuity in the safety of operation?</p> <p><i>Tips: You can look at the template for transparency on page 18 for a detailed list of documents that you would want to share with the new owner.</i></p>			
1.a Have you reviewed this information to make sure it is complete and up to date?			
1.b Have you made sure this information will be provided in a way that will be easy for the new owner to review?			
<p>and documentation?</p> <p>new owner for providing any relevant legislation and with the</p> <p>for assuring a safe change of potential liabilities you would long.</p> <p>form the regulator about your so may be the new owner?</p> <p>ability</p> <p>understanding of the hazards on e to prevent and contain them?</p> <p>ance on Corporate Governance res safety at your facility.</p> <p>r information about the hazards, ected safety problems) and the</p> <p>potential loss of safety critical</p> <p>procedures to ensure safety will act that personnel changes will</p> <p>Managerial Issues</p> <p>must be focused on during the</p> <p>from previous inspections or e new owner?</p> <p>technical or operational issues</p> <p>levant information about the site</p> <p>compliance with the law?</p> <p>Make sure to:</p> <p>Underlying Risk Drivers, Attitudes and Responsibility</p> <p>1. How familiar are you with your legal responsibilities in taking over a major</p> <p>your standards or internationally accepted safety levels, you should plan to bring up the situation to such safety levels within a reasonable period of time.</p>			

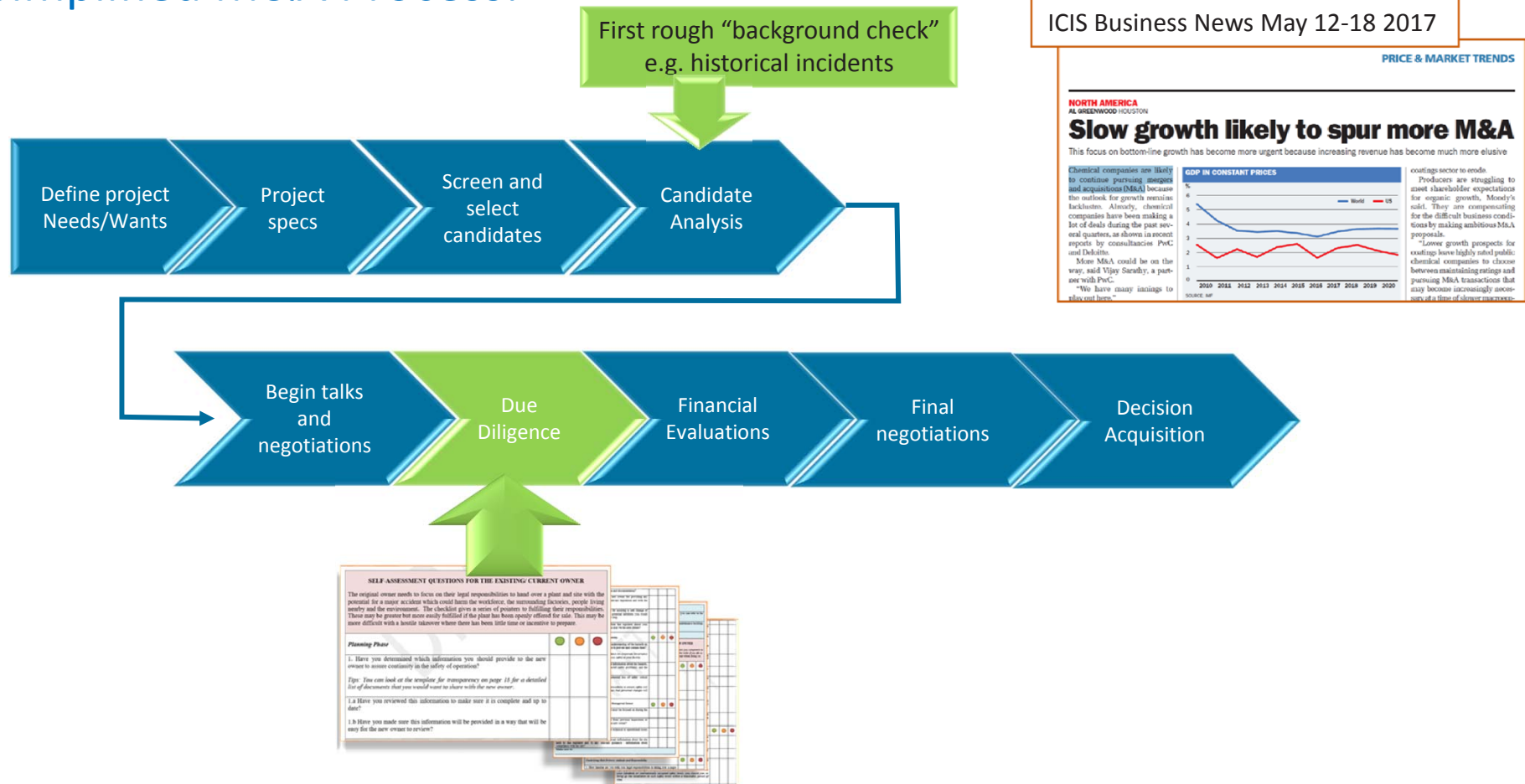
Taking the next step:
Introducing *Process Safety* into all aspects of corporate governance

Guidance to be used early in the process


As M&A are expected to increase in the future



Simplified M&A Process:



OECD Guidance could take a distinct function in the Due Dilligence process



Thank you for your attention

ICCA

Cefic

OECD



Thank you

