



National Energy  
Board

Office national  
de l'énergie

# Safety Culture in the Offshore Industry: An International Regulatory Journey

Presented at the Marine Board Fall Meeting  
Washington, DC



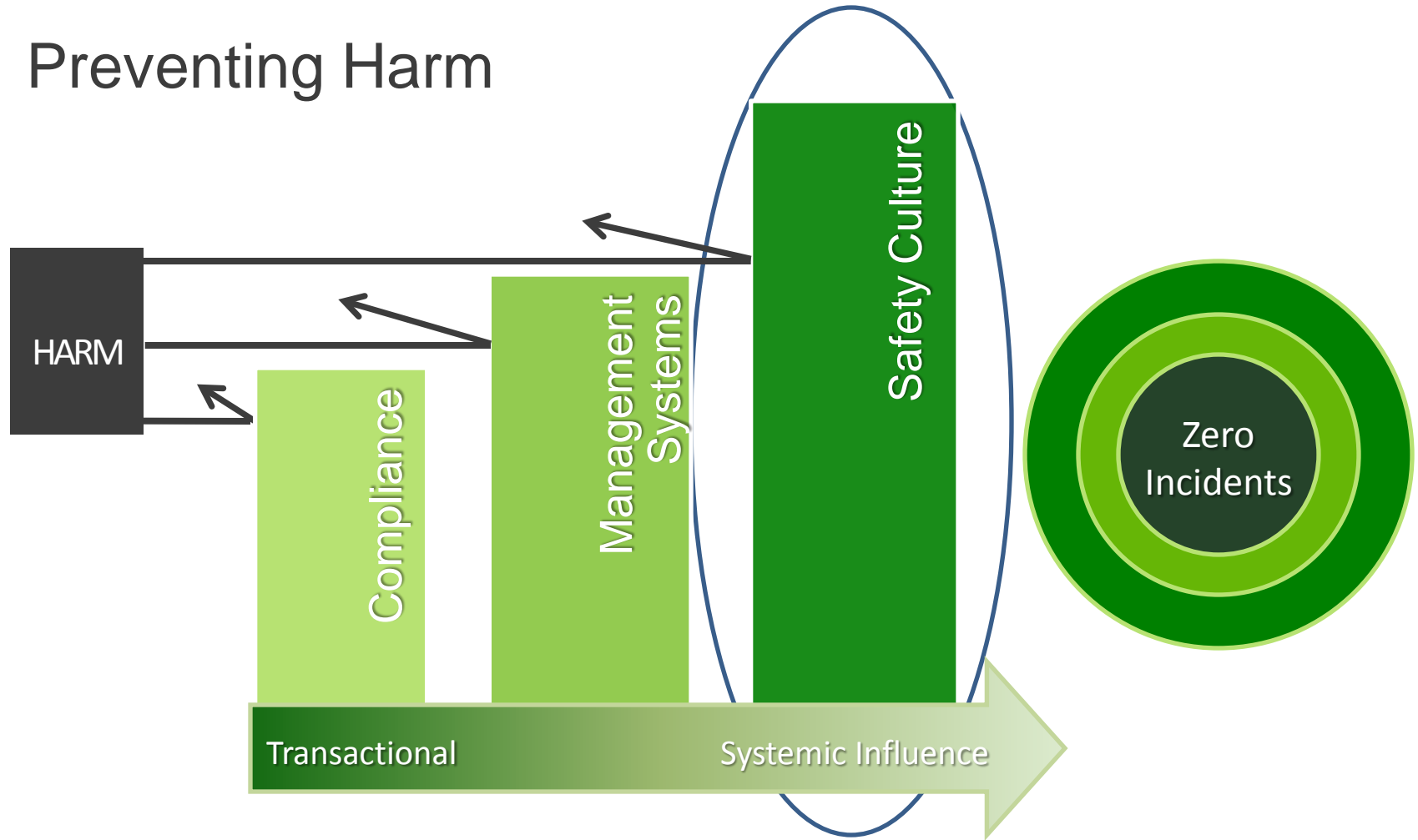
Presented by Claudine Bradley (PhD), Technical Leader, Safety  
7 November 2017

Canada

# Regulating in the 21<sup>st</sup> Century

Today, serving the public interest means more than ensuring compliance, regulators must fortify the safety system that they oversee.

# Preventing Harm



# NEB SAFETY CULTURE TIMELINE OVERVIEW (INDUSTRY FOCUS)

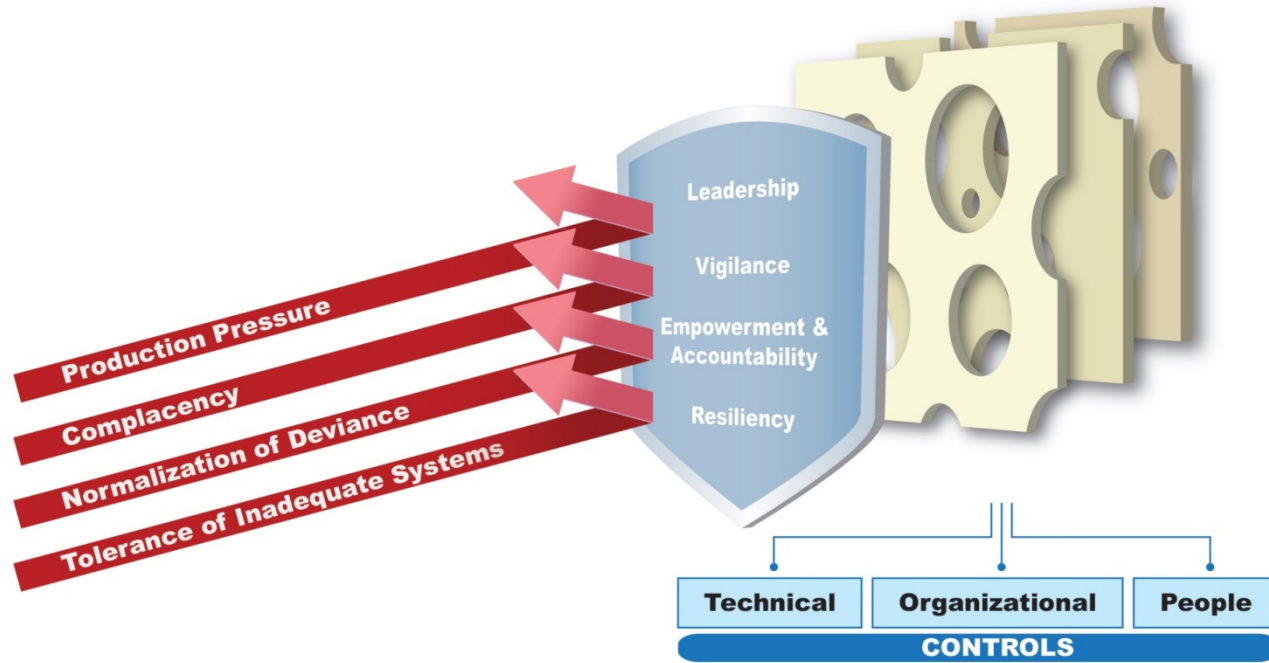
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<ul style="list-style-type: none"><li>• Established North American Regulators Working Group on Safety Culture (NARWGSC)</li></ul>	<ul style="list-style-type: none"><li>• Released Statement on Safety Culture</li></ul>	<ul style="list-style-type: none"><li>• Conducted research project to produce suite of safety culture indicators</li></ul>	<ul style="list-style-type: none"><li>• Held Joint Regulatory – Industry Safety Culture Workshop</li><li>• Released Safety Culture Indicators Research Report</li><li>• Begin IRF safety culture research project</li></ul>	<ul style="list-style-type: none"><li>• Piloting data collection of safety culture signals during traditional compliance verification activities</li><li>• Complete IRF safety culture research project</li><li>• Ongoing outreach</li></ul>

# NARWGSC Strategic Priorities

- Regulatory use of safety culture indicators to capture signals
- Development of safety culture competency and capacity
- Contractor oversight by operators
- Regulator Safety Oversight Culture

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# Safety Culture Indicators

## The Indicators Are...

- A detailed, concrete representation of safety culture dimensions
- One part of a broader toolkit to further the understanding of cultural strengths & weaknesses
- A method of identifying data for collection and analysis by culture experts

## The Indicators Are Not...

- An audit protocol
- A prescriptive list of regulatory requirements
- A compliance or inspection checklist
- A tool used for regulatory enforcement
- Required to be adopted by industry

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# IRF Safety Culture Project

- AGM in late 2015 in Washington, DC confirmed culture as an area of interest for the IRF
- Culture working group (WG) established with members from Denmark, UK, Mexico, Brazil, The Netherlands, and Canada
- WG goal is to identify key cultural elements/indicators that impact process safety performance and contribute to major hazard incidents

# IRF Safety Culture Project

- Phase I - capture general IRF member perspectives on safety culture indicators
- Phase II - review of indicators' validity by safety culture experts
- Phase III – survey of industry associations on most important indicators (Mexico Canada, U.S., and The Netherlands)
- Final report and recommendations tabled at 2017 AGM

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# NEB SC Data Pilot

- ▶ Determine and make recommendations on how to operationalize the safety culture indicators within the regulatory domain
- ▶ Pilot indicators and incorporate lessons learned into the indicators themselves and/or associated processes



# SOLA

# Lessons from Fukushima

- Regulators must improve their understanding of how internal organizational decisions and actions affect industry attempts to strengthen safety culture (IAEA)
- Regulators need to possess a strong safety culture and assess it periodically (IAEA)...but what does this look like?



# NEB SAFETY CULTURE TIMELINE OVERVIEW (REGULATOR FOCUS)

2015

- NARWGSC identify regulator safety culture as strategic priority
- Commissioned Regulator Safety Culture Backgrounder research completed by Dr. Mark Fleming

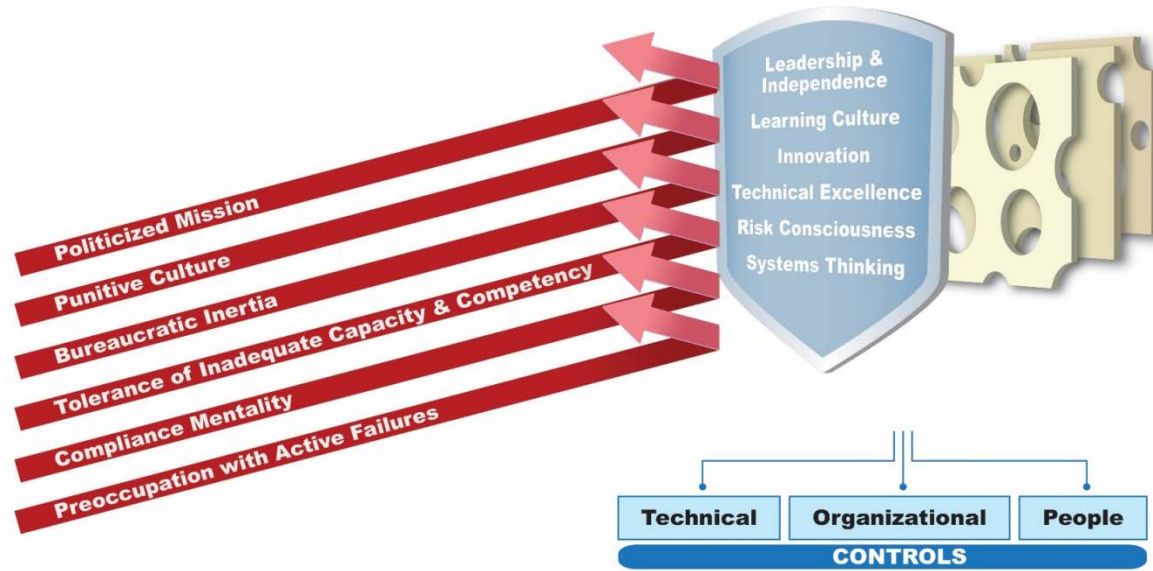
2016

- Conducted research project on Regulator Safety Oversight Culture (C. Bradley's dissertation)

2017

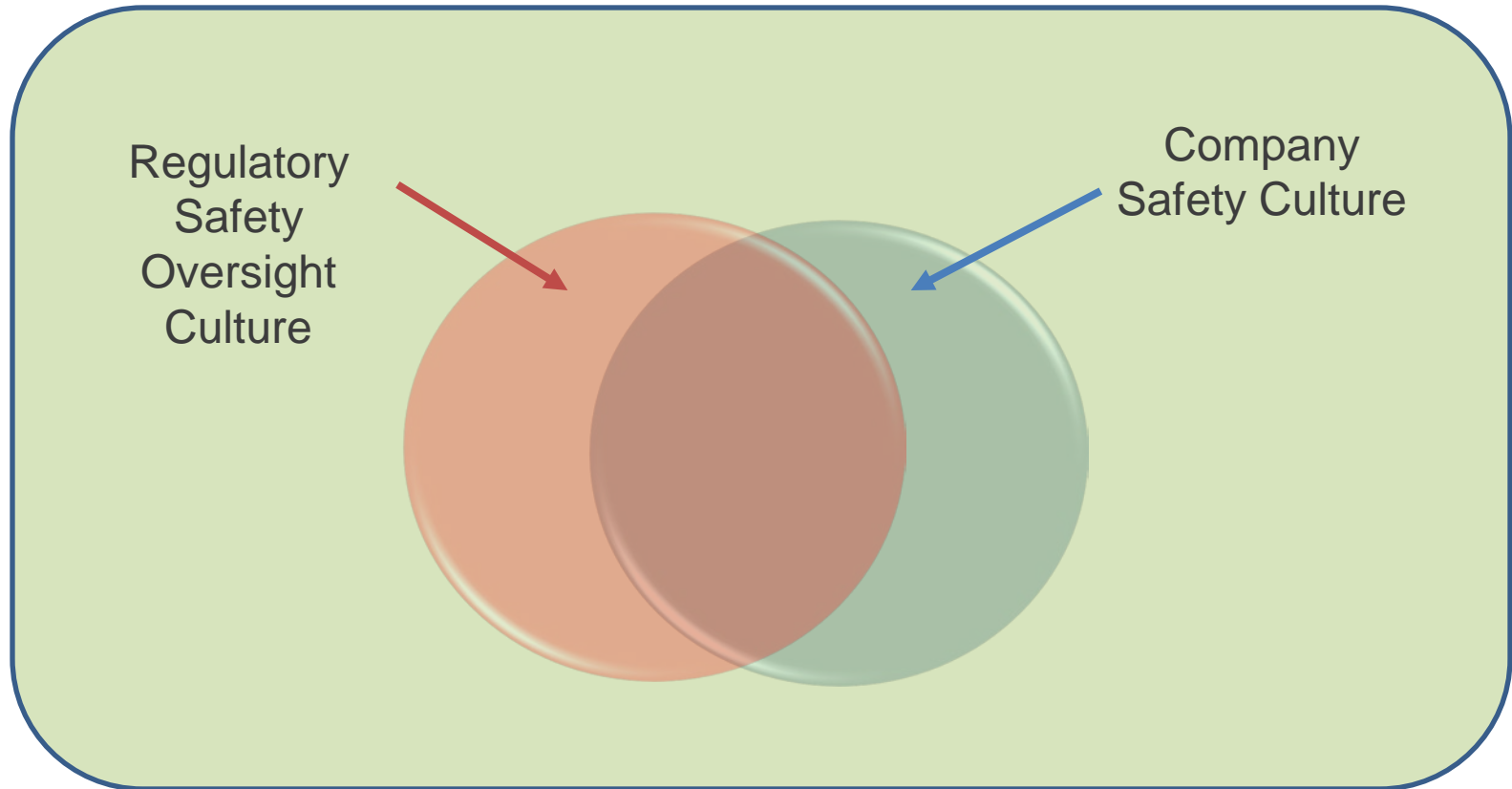
- Regulatory Safety Oversight Culture theory and framework developed (C. Bradley dissertation)
- Outreach to industry, stakeholders, and other regulators on need for regulators to understand their own cultural vulnerabilities and strengths

# Regulator Safety Oversight Culture



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# The Future Path for Regulators?



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