# Are Operations Management Systems (OMS) Living Up to Expectations?

## Summary Notes

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experience. ethier

## What is a Management System?

Every company has a management system – it's how you get things done, what you prioritize, how you make decisions. Many companies do this intuitively or informally and don't have this written down.

In Canada, the various regulators, due to the complexity of the operations of certain industries, have determined that companies need to document and implement formal management systems with the intent to reduce operational risks.

Paraphrasing from the National Energy Board – Audit Protocol for Management Systems and Protection Programs (this is aimed at pipeline companies but could be applicable to any complex business)

> The (Board) expects that pipeline companies operate in a **systematic, comprehensive and proactive manner that manages risks**. The Board expects that companies have **effective, fully developed and implemented management systems and protection programs that provide for continual improvement**.
>
> A carefully-designed and well-implemented management system supports a strong culture of safety, and is fundamental to keeping people safe and protecting the environment.
>
> As required by the NEB Onshore Pipeline Regulations (OPR), companies must establish, implement and maintain effective management systems and protection programs in order to anticipate, prevent, mitigate and manage conditions that may adversely affect the safety and security of the company's pipelines, employees, the general public, as well as property and the environment.

The Alberta Energy Regulator expects pipeline companies to establish Safety and Loss Management Systems, based on CSA Z662. In fact, the AER just put out a bulletin in March (2017) that they will be evaluating licensees SLMS and asking for self-assessments and a declaration that you understand and take responsibility for this requirement.

I think both these regulators do a good job of describing the high-level requirements for Management Systems.

## Why do we need OMS?



March 24, 1989 - This was the Exxon Valdez, a super-tanker that ran aground in Alaska's Prince William Sound.

- 250,000 barrels of crude oil were released.
- Around 2,000 kilometers of shoreline were contaminated.
- 2,000 sea otters, 300 harbour seals and about 250,000 seabirds died in the days immediately after the spill.
- Almost 30 years later, the ecosystem has still not fully recovered.
- It cost Exxon over $4.3 billion US dollars to resolve

It also pushed Exxon, and the energy industry in general, to develop Management Systems to manage their operational risks more effectively. Exxon established their Operations Integrity Management System to address the risks inherent in their business.

Unfortunately Management Systems have been born out of disasters like the Valdez. The chemical, nuclear and aviation industries, amongst many others, have been front runners in the development and use of Management Systems. The energy industry is now firmly on-board and is developing best practices to minimize risks to personnel, the general public, the environment and to assets.

## The OMS Complexity Challenge

This set of diagrams illustrates Ethier's perspective on OMS Complexity and our observations of how Management Systems have been evolving.
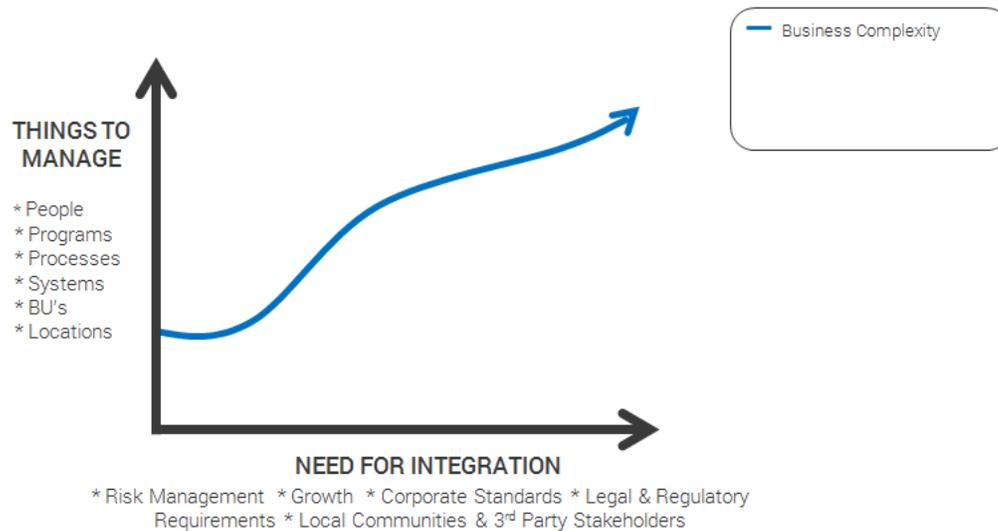


Every organization, as it grows starts to become more complex.  Business complexity increases as you increase the number of **things you have to manage**, such as the number of people, programs, processes, cross-province and cross-border locations.

As the number of things to manage increases, the **need for integration** also increases, for example, managing the risks across multiple locations, the need to meet growing regulatory requirements, managing 3$^{rd}$ party relationships and local communities.

This blue line represents how business complexity will naturally increase as a company grows and changes.

Ideally, our Management Systems should be designed around the business complexity.
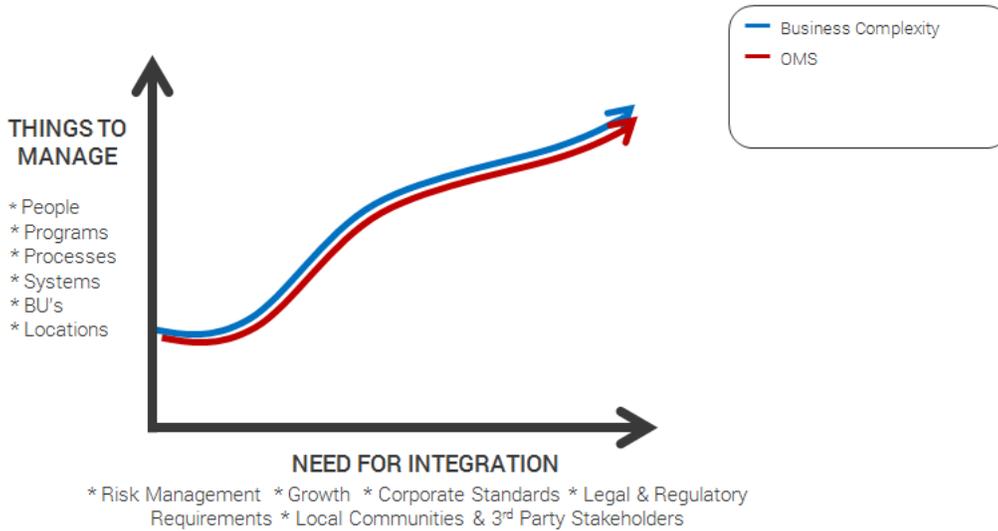


For example, if we are a smaller company with operations in one province, our OMS should be much simpler than the one required by a major multinational like Exxon.

The OMS should be right-sized for the business complexity we are trying to manage and should evolve as the business evolves over time.

Ideally the OMS will help reduce business complexity by supporting better decision making and improving risk management.

From our experience and observations, the OMS curve is not always right sized for the business. In the following diagram, the lower section indicates that the OMS is not aligned, as the processes and controls in place do not adequately manage the business complexity.
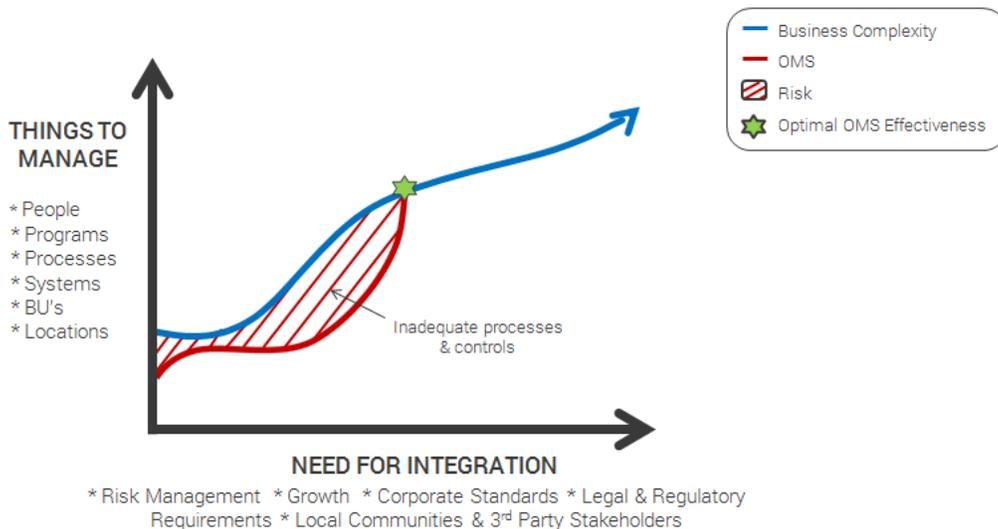
Often organizations may not realize this, and usually it is an audit, either by the regulator or by internal auditors, that identifies the gaps in OMS that need to be addressed.

The green star here indicates that the OMS has been improved, the gaps have been closed, and the OMS is now right sized for the organization's business complexity.

In some cases the OMS has become overly complex, as represented in the upper section of the following diagram.
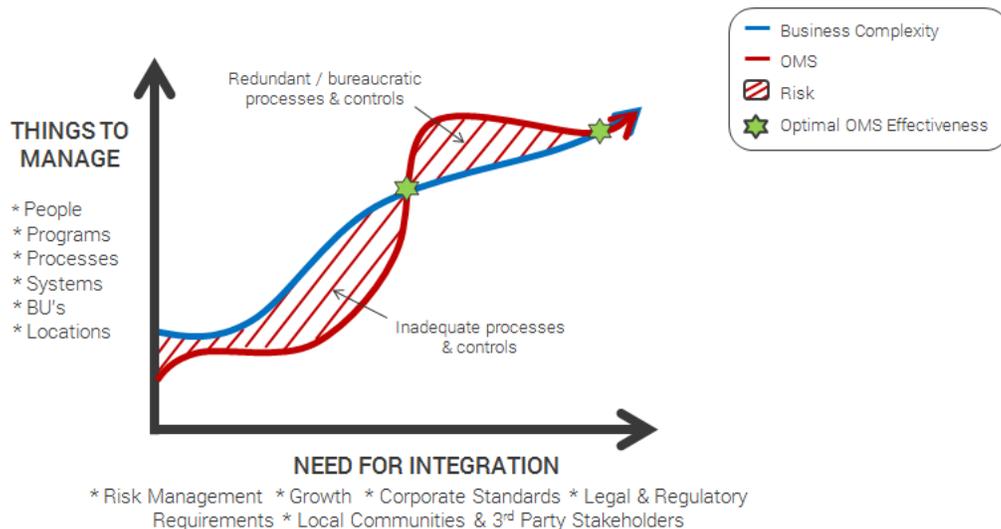


An example of this is what happens when a company does a number of acquisitions. Initially they may have a very well aligned OMS, but then each acquisition adds new assets and new management systems. It takes work to integrate the multiple management systems and there is often redundancy in the processes and controls.

Two potential examples could be Enbridge's recent acquisition of Spectra or Cenovus's acquisition of ConocoPhillips. Each of these companies have their own management systems, and at the time of merger, all these systems will still be in place. Until the systems are assessed, redesigned and rationalized, there will be some redundancy of the controls in place.

The take away with this picture:

When the OMS does not align well with your business complexity there is risk.

There is risk in having too few controls and there is risk when you have too many. Overlaps or gaps create confusion.

Ethier believes that the design of the OMS, and its fit to the business complexity of the organization, is critical to its success.

## Adoption of the OMS

The previous diagram was focused on the design of the OMS, and the definition of processes and controls into a working system.

Anyone who has done any kind of system implementation will know that the challenge is not only designing the system, **it's getting the people to use it**.

Many organizations are challenged to successfully embed their OMS and establish systems that are well understood, maintained, and seen as a valuable tool to help support operations.

The following diagram shows how people progress from Stage 1-Apathy to Stage 7 where they are engaged and committed to the OMS.

| Stage | Description |
|---|---|
| **7. Engaged & Committed** | Committed to do whatever they can to ensure the OMS vision is met. |
| **6. Genuine Compliance** | Sees the benefits of OMS. Wants to do what is expected and more. |
| **5. Formal Compliance** | On the whole, sees the benefits of OMS. Follows what is asked for and no more. |
| **4. Grudging Compliance** | Does not see the benefits of OMS, but does not want to lose their job. Does what is expected "because they have to". |
| **3. Malicious Obedience** | Does not believe in the benefits of OMS. Not supportive and "I will do it just to prove it won't work". |
| **2. Noncompliance** | Does not believe in the benefits of OMS and will not do what is expected. "I won't do it; you can't make me". |
| **1. Apathy** | Does not care about OMS. "Is it five o'clock yet?" |

Adapted from "The Fifth Discipline", Peter Senge

Ethier believes that we need to apply people change management principles to the implementation of an OMS in order to **get people to adopt the OMS and really buy-in, to move them from Stage 1 towards Stage 7**.

## The take-away from this picture:

If you don't plan to actively manage and support the adoption of your OMS you should not be surprised when people try to ignore it or work around it.

Engaged people are the best defense to the challenges of increasing business complexity and the associated operational risks.

## OMS Cube

The cube (handed out at the event) encapsulates Ethier's approach to the key elements of an OMS:
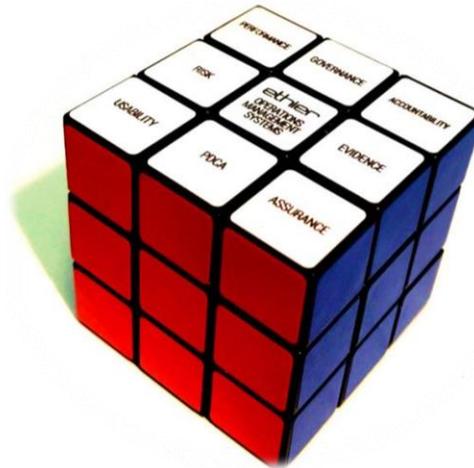


| | |
|---|---|
| Performance | Setting and meeting Corporate & Regulatory Compliance policies and standards. Creating and operating the required Programs, Plans, Processes, and Procedures that make up the overall OMS. Identifying the required Control metrics and KPI's. |
| Risk | Assessment of Hazards and Risks, the processes for identification and communicating any changes, and establishing the appropriate controls to manage the risks. |
| Usability | Focus on People and Ease of Use; Doing the Change Management, Planning and Communications to help change Behaviours and the Culture & gaining Buy-In to the OMS |
| Governance | Management Review & Oversight. Defining the Structure; Organization; Roles & Responsibilities; Decision-making and Reporting to ensure the OMS is running efficiently and meeting objectives. |
| Accountability | Defining these for Leaders & Personnel; Setting GOTS (Goals, Objectives & Targets) and ensuring you have the enough competent resources to meet commitments |
| Evidence | Ensuring the processes result in the required results and documents and records are stored to be able to prove you are following your commitments. |
| Assurance | Quality Assurance program, the schedules for Audits and Inspections, Tracking Corrective and Preventative Actions and helping the organization evolve the maturity of their OMS. |
| PDCA | Continual Improvement of the OMS, including use of Self-Assessments; Monitoring; Collecting Feedback; and Learning. |

# Key Discussion Points from the Panel

## Are Operations Management Systems Living up To Expectations?

Generally the panel agreed that OMS are meeting expectations. They provide the following benefits:

- Highlight and enable management of risks
- Help improve safety performance
- Provide KPIs so you can monitor performance
- Help organizations identify what is working and what is not – it is better to know where your gaps are so you can address them

## Top challenges in the implementation of Management Systems?

Documentation Approach

- Designed to be too technical – written by people who don't like to write and used by people who don't want to read
- Document writers tend to be Subject Matter Experts (SMEs) and that does not mean they are good writers
- Usability has not been factored into the architecture of the documentation

Adoption

- Many (siloed) programs were well established before OMS was implemented – they were challenged by the changes required to deconstruct and reintegrate their programs
- Getting alignment and compliance requires work that people don't want to do; need to emphasize benefits, leverage influencers who are accepting, and ensure leadership commitment (needs to be clear and unwavering)
- Recruit leadership commitment to influence the non-believers

Technology

- Regulatory complexity is difficult to manage; multiple requirements over multiple parts of the organization
- Does not work well using spreadsheets

## Strategies used to make Management Systems more effective?

Design Approach

- Use system thinking in the design of the OMS
- Take the time to design before rushing to implement
- Simplify wherever possible (e.g. 7 elements versus 30+)
- Align to existing work processes (make sure you remove redundancy)
- Provide standards to ensure consistency
- Clarify responsibilities for leaders, particularly with respect to monitoring
- Facilitate target setting
- Allow time to iterate and modify the design
- Recognize it is a journey – so plan your implementation and accept it will take time (it will not all complete in one year)
- It is never "done" – this is a process of continual improvement

Use of 3rd Party Consultants

- Recognize that organization SME's need to be engaged but generally don't have business process expertise; bring in 3rd parties to build and design alongside SMEs to facilitate sustainment
- SMEs don't generally know how to write/design a good process document that is usable by others – this process design capability is a skill that a 3rd party can bring
- Working and operating an OMS is not the same as designing and building a new one – 3rd parties can bring in that expertise to help the SMEs meet the objectives
- 3rd parties can help facilitate consistency across the many functions/departments in an organization
- Select a good partner that will work alongside you and set up the right level of internal engagement and involvement to be effective

Focus on Adoption and Culture

- Provide positive reinforcement from team and leaders (negative reinforcement has immediate, and not sustainable, effects)
- Make the case for "why we should change"
- Educate the organization that they are "doing the right things" but not in a demonstrative and sustainable way. Emphasis should be on doing things better and more consistently (not doing something wrong)
- Get upfront commitment from the executive and educate them on the need for integration and coordination. Need one core sponsor and prepare them for the need for hard decisions.
- Recognize changing culture takes time. e.g. safety culture is now embedded after 10 to 15 years of focus (including safety moments at meetings); possibly use similar approach with OMS to enforce new behaviours and benefits on an ongoing basis.
- Support middle management - e.g. use of self-assessment provided illustration of gaps – this moves from OMS theory to what is impacting them directly

Engaging Senior Leadership

- Need to engage senior leadership and help them understand that the full implementation of the OMS takes time
- OMS will require an ongoing commitment to CI (Continuous Improvement)
- Explain that the OMS will find gaps – that is part of its purpose  - and the team will need to work together to address them
- Recognize that the OMS team will need to fight management system fatigue and the desire from leadership to move on (and be "done"); need to help them understand what you are achieving while you continue to work on it
- OMS are starting to gain interest from Boards (risk management and safety themes)
- Be aware if you have a change of your major sponsor – this can create challenges to maintain the level of support required

Well defined Roles and Accountabilities

- Need a clear organization chart and job description
- Need to cascade authority, responsibility and accountabilities down from the top
  - o Start governance from the top that focusses on interfacing accountabilities and authorities (across the organization)
  - o Cascade down the organization and continue to look back at interfacing accountable authorities (ideally defined together)
  - o Use a standard "menu" of authorities, the RACI is not sufficient

## How do Audits benefit the Management System?

- External audits raise internal leadership attention and commitment
- Audits provide insight into where work is required – e.g. consistency and integration across programs
- Helps mobilizes the organization, the need to meet regulatory deadlines gets people focussed
- The audit forces a timeline that has Senior Management focus and support

## How would you leverage Technology to support the OMS?

- OMS are too complex to be built entirely in word, excel and PDF; they need workflow and relational database capability e.g. hazard and risk, accessed for multiple reasons from multiple perspectives
- Recommend core systems and potentially middleware to access data from existing systems
- Focus on management reporting and following the data through KPI's. What gets measured, gets done.
- Focus on design before focussing on technology solutions.  Need the right standards and ability to access capability, before automating

## When do you expand the OMS to a full Management System that includes more than Operations?

- The challenge is the danger of "boiling the ocean" if you try to build a Management System for the whole organization – this can be the "kiss of death"
- A deeper dive will take attention away from Operations – which directly impacts risk and revenue
- Focus on getting a working OMS first with a well-designed framework that is supported by well-defined policy and working arrangements.  Only when all this is working should you consider expansion of scope.

## Key successes the Management System can create at your organization?

- More effective risk management
- Minimize and ensure safety management oversight
- Consistency over time, leading to sustainability; initially relied on people over process (which can't be sustained over time)
- Knowing what you didn't know – identification of gaps
- Measuring processes, using management reporting effectively to ensure work is being completed (closing the loop to manage risk appropriately)
- Standards and measurements, and more consistency, becoming more streamlined with common terms and less duplication of effort
- Process evolution – improve how information is shared, used and escalated
- Reduce duplication of effort, highlights duplicate processes
- Identification of multiple (duplicate) systems/shadow organizations addressing similar or same processes (e.g. multiple systems to track corrective actions across the organization)
- Identification of root causes of systemic issues
- Organization starts to clearly understand how controls link directly to how people do their jobs
- Business value of consistency = more efficient.
- Visibility and transparency of data, helps the company make better decisions

## Advice from the Panel:

- Start as early as possible- use the time to establish a well thought through OMS design (audits provide momentum but also create significant time constraints)
- Engage other systems and programs earlier to incorporate the current state understanding before the OMS design; could have eliminated duplicate processes and systems earlier, and achieved efficiencies sooner
- When people are trained and clearly aware of requirements and ready to close the gap, the OMS will run itself.  Spend time up front to define and agree what implementation means.
- When starting out, ensure you have strong leadership support and have the right qualified 3rd party support
- Find the right balance between "good enough" and "perfect"; need to keep moving and ensure ongoing leadership support. Application of the "80/20" rule
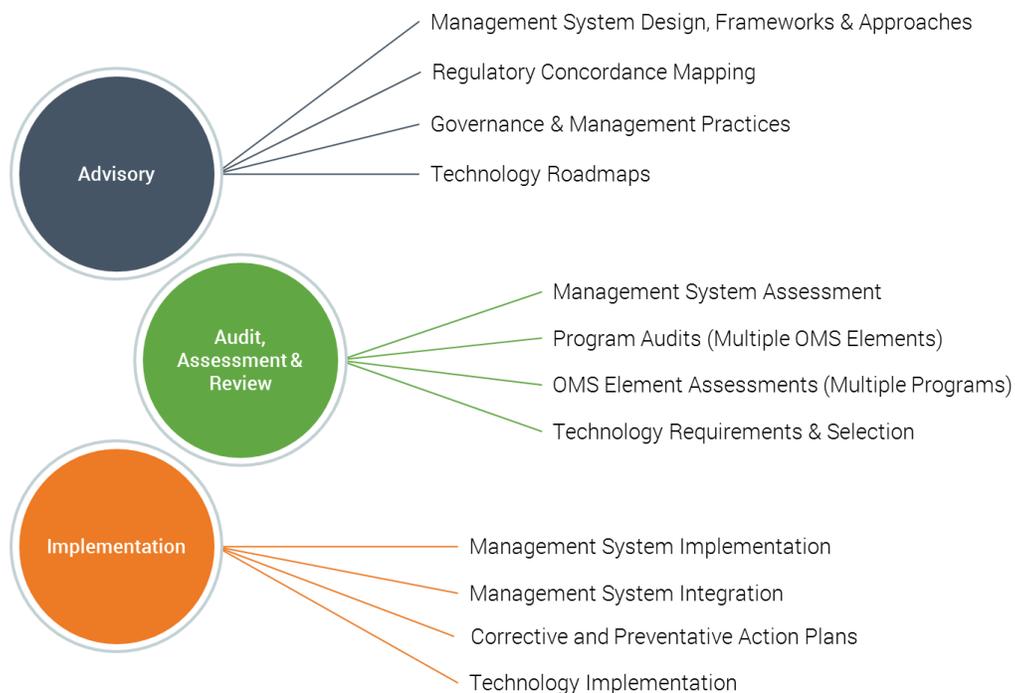
## Closing Comments:

Management systems are not new, but they are becoming an increasing focus for regulators that want companies to address hazards and risks in a holistic manner. This lines up well with Ethier's philosophy to solving business challenges.

We believe that complex systems must be thoughtfully analyzed and then designed with the prime goals being integration and usability. Systems require people to make them work, and people appreciate simple, well designed processes that align to their responsibilities.

In our experience, many management systems have been designed purely with regulatory compliance in mind. Though this method may get a "check in the box" regarding compliance, we believe companies are missing a very large opportunity when they take this approach.

Ethier believes that a Management System should be designed as a pragmatic solution for supporting Management, engaging employees, and holistically managing operational risks.

Our OMS consulting services include:

**Advisory**
- Management System Design, Frameworks & Approaches
- Regulatory Concordance Mapping
- Governance & Management Practices
- Technology Roadmaps

**Audit, Assessment & Review**
- Management System Assessment
- Program Audits (Multiple OMS Elements)
- OMS Element Assessments (Multiple Programs)
- Technology Requirements & Selection

**Implementation**
- Management System Implementation
- Management System Integration
- Corrective and Preventative Action Plans
- Technology Implementation

We would be pleased to talk to you about your company's current situation and how Ethier's services could help evolve your management system.

## Panel Bios

### Lisa Krzyzewski

Lisa currently manages Facilities Project Management for Cenovus Energy, providing project management and project controls expertise for major surface facility projects. Prior to this she led the company's Operational Excellence team - responsible for the strategy, design and implementation of the Cenovus Operations Management System, as well as the company's Continuous Improvement and Business Process Management practices. Lisa began her career managing projects with the Risk Consulting team at a multinational insurance broker and later consulted for Husky Energy where she developed and managed their upstream portfolio of business improvement projects. Through these roles and others, Lisa has developed in-depth expertise in the leadership, design, and delivery of transformational programs, organizational culture change, business process management, and operations excellence management systems. Lisa is an outdoors enthusiast who can be found backcountry skiing, actually all types of skiing in the winter, and mountain biking in the summer.

### Troy Meinke

Troy is the Director, Operational Compliance at Alliance Pipeline, a natural gas pipeline system with operations in Canada and the United States.  He has over 20 years of consulting and industry experience, recently celebrating his 17th year at Alliance.  Troy has broad experience in the development of compliance and management systems for the safety and environmental disciplines, as well as integrated management systems.  He leads culture and process development to achieve organizational goals around diverse issues involving health, safety, security, emergency response, environmental stewardship and operational compliance.  In his free time, Troy enjoys motorsports, hiking, and spending time with his family.

### Clint Austin

Clint has over 20 years' experience helping companies develop, establish and optimize their business processes, compliance programs, and risk management systems. With a specialization in Operational Excellence and Operations Management Systems, he has developed and implemented OMS frameworks and capabilities as the foundation for executing safe, efficient, and compliant operations and projects. Clint has held operational leadership roles with Spectra Energy, Cenovus, Suncor and Nortel, as well as supported a number of continual improvement and cultural transformation initiatives at companies such as Shell and Brion Energy.  He holds a Master of Business Administration from Queen's University and a Mechanical Engineering degree from the Royal Military College of Canada. He is also a Certified Professional Accountant and a Lean Six Sigma Black Belt.  Clint enjoys mountain biking, paragliding, volleyball, and canoeing.

### Sohail Thaker – Moderator

Sohail is a Partner at Ethier, a Calgary based consulting firm that drives business excellence.  He has over 30 years of international consulting experience and recently celebrated his 19th year at Ethier.  Sohail has advised and helped his clients implement pragmatic business solutions in the Oil and Gas, Telecommunications, Healthcare, Software, and Logistics industries. His expertise includes leading business transformations, project management, business analysis, business process innovation, change management, and facilitation. Sohail leads Ethier's Management Systems and Regulatory Compliance Services Practice, and in his free time enjoys running, martial arts, and cosplaying.