ISRS™

for the health of your business

SAFER, SMARTER, GREENER

BEST PRACTICE SAFETY AND SUSTAINABILITY MANAGEMENT

ISRS is a world leading system to assess, improve and demonstrate the health of an organization's business processes. Using ISRS gives organizations and their stakeholders peace of mind that their operations are safe and sustainable. Organizations are under increasing scrutiny from a growing number of stakeholders. Regulators, customers, employees and society expect ever high standards of safety and sustainability. Satisfying these expectations is often a matter of business survival and is one of the major challenges facing organizations today. ISRS helps organizations cope with this challenge. Demonstrating the health of an organization's business processes with ISRS is a proven way to show stakeholders that operations are under management control, giving an organization freedom to operate and grow their business.

International Safety Rating System

ISRS represents 40 years of accumulated best practice experience in safety and sustainability management. ISRS first edition was developed in 1978 by Frank Bird, a safety management pioneer following his research into the causation of 1.75 million accidents. Since then, ISRS has been implemented on thousands of sites worldwide and become a global benchmark for excellence in safety management. Over four decades, ISRS has been regularly updated to reflect and lead best practice. Its continued success is testimony to its vision and strong foundation in research.

International Sustainability Rating System

ISRS seventh edition was developed in 2005 and its scope expanded beyond occupational health and safety management to address best practice in a range of sustainability issues including environmental, quality and security management and sustainability reporting. These changes were made to address the changing needs of our clients and the increasing expectations of their stakeholders.

The scope of ISRS eighth edition was expanded again to help organizations improve process safety management following growing industry concerns over the increasing frequency of major accidents.

Many ISRS clients have major hazard processes with the potential for significant process safety accidents e.g. fire, explosion or release of flammable or toxic materials above threshold levels.

To address these risks, ISRS eighth edition includes specific controls needed for managing process related events. The eighth edition also includes

updates to reflect changes in international standards including OHSAS 18001:2007, ISO 9001:2008 and Global Reporting Initiative 2006.

Released in 2019, ISRS9, or 9th edition, extends the management system to cover the increasingly more important aspects of asset management, energy management, information security, knowledge management, and social responsibility.

Risk Management

ISRS helps organization's ensure systematic and effective risk management.

Effective risk management begins with implementing the necessary processes for risk evaluation concerning employees, the community and the business. The organization should identify the "bottom up" risks associated with specific hazards for occupational health, occupational safety, process safety, environment, security and quality. Site management should identify the "top down" business risks which threaten the survival or reputation of the organization associated with major internal or external events, the loss of major clients, key supply chain partners or key personnel.

Adequate risk controls should then be put in place including engineering design, rules, procedures, training and protective equipment to meet defined performance standards. Preventing major loss events requires the necessary people, process and plant barriers are in place. The risk management improvement loop concludes with risk monitoring activities including inspection, observation, audit and review processes to ensure the controls are adequate to address the identified risks.

The ISRS system includes a range of tried and trusted tools which may be used in flexible ways to develop, train, implement and audit safety and sustainability management in an organization.
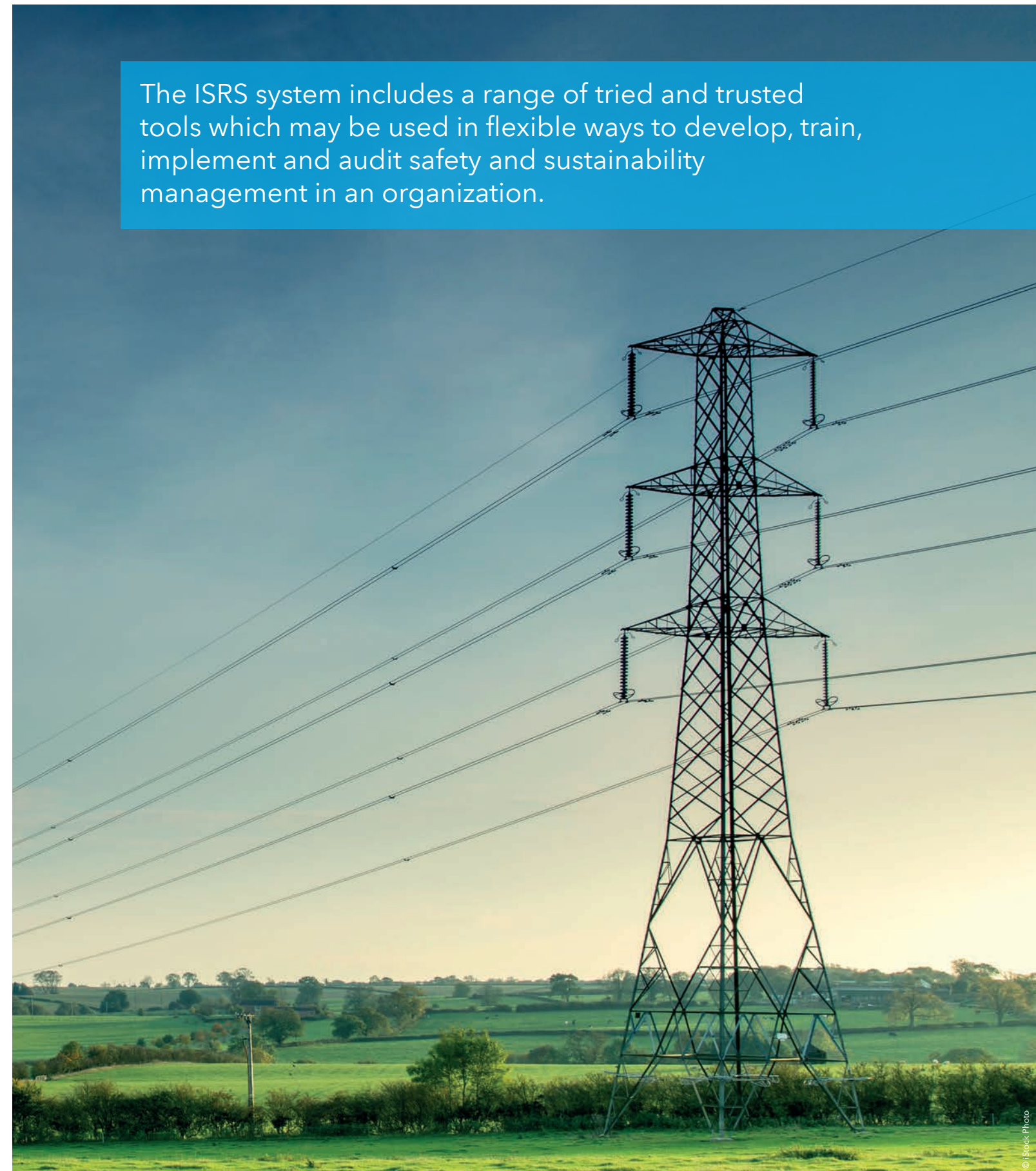
Assessment

ISRS consists of 15 key processes, embedded in a continual improvement loop. Each process contains sub processes and questions.

STRATEGY	1.	Leadership
PLAN	2.	Planning and Administration
	3.	Risk Evaluation
	4.	Human Resources
	5.	Compliance
	6.	Projects
IMPLEMENT	7.	Competence
	8.	Communication and Promotion
	9.	Risk Control
	10.	Asset Integrity
	11.	Contractors and Suppliers
	12.	Emergency Preparedness
MONITOR	13.	Learning from Events
	14.	Risk Monitoring
REVIEW	15.	Results and Review

An ISRS assessment is a thorough evaluation of these questions and involves interviews with process owners where the questions are scored and commented. The scope of the assessment is entirely flexible determined by the size and complexity of the organization and the management team's requirements. Detailed verification is conducted and organizations must be prepared to offer evidence to support their answers. The process scores determine an overall level of performance between one and ten. The results provide a detailed measure of performance and a gap analysis against the organization's desired level of performance. This becomes the planning basis for improvement during the next period.

ISRS assessment workbooks are available in eleven languages.

ISRS is structured with 15 processes embedded in a continuous improvement loop:
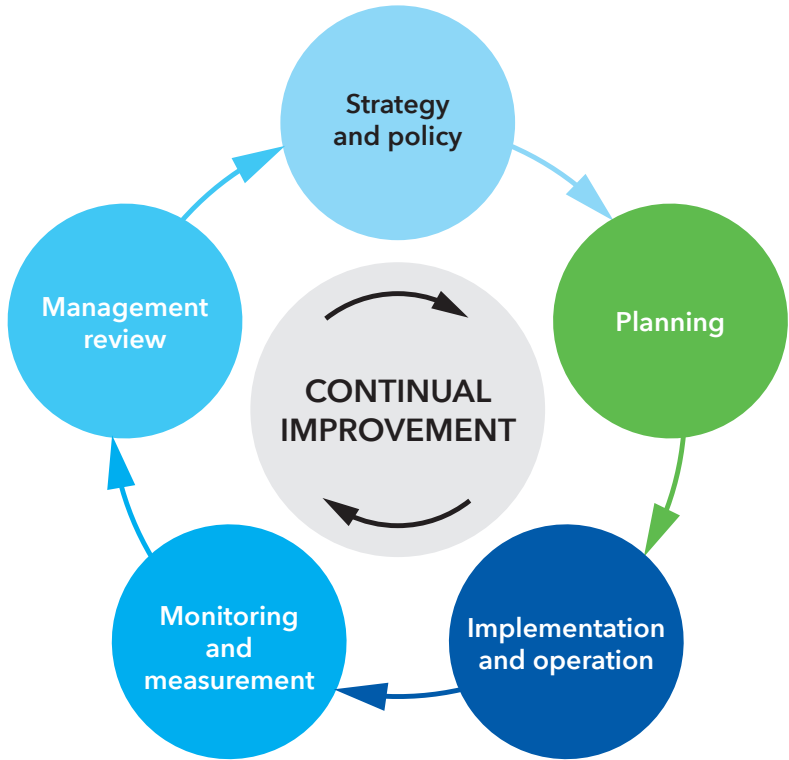
Training

Effective training for supervisors and managers is essential for the effective implementation of any management system. ISRS offers a range of standard and customised training courses to support different client needs.

Modern Safety Management
This course provides participants with the fundamental concepts, tools and techniques for effective safety management.

Modern Safety Management is the most widely attended course of its kind in the world and DNV GL's best selling course worldwide. Modern Safety Management is based on proven principles of safety management and provides participants with the fundamental concepts and techniques for a practical, proactive approach to managing safety and controlling losses. The course is available in 3, 4 or 5 day versions.

Modern Safety Management 1st Edition was established in 1985 and has been taught to more than half a million participants worldwide. This pioneering course has defined good practice in safety management for industry worldwide.

Modern Safety Management 2nd Edition include the latest risk management concepts and techniques needed to implement an integrated health, safety, security, environmental and quality management system. Modern Safety Management 2nd Edition

provides participants with practical and proactive management techniques to ensure safe and sustainable operations.

ISRS Assessor
This 4 day course provides participants with the knowledge to conduct an ISRS assessment.

ISRS Assessor is a mandatory course for individuals who wish to conduct an ISRS assessment. ISRS has a unique structure and quantified scoring methodology and requires specific assessment training. The course provides an overview of the 600 questions in the ISRS workbook and gives participants an opportunity to practice scoring the questions to reach the required standard of consistency. The course also explains the assessment process, how to plan and scope an assessment, behaviour during the assessment and reporting using the ISRS Summit assessment software.

Participants practice scoring questions using anonymous real-life case study evidence. Scores are then discussed in the group and compared against the model answer in order to practice consistent scoring.

ISRS9 includes the extension of the management system to cover aspects of additional standards - ISO 55001, ISO 50001 and ISO 27001 (asset management, energy management, and information security). Also included are updates to numerous standards for quality and environmental management, occupational health and safety systems, as well as corporate social responsibility standards.

ISRS has a broader view now by recognizing the following 10 loss categories:

- Occupational Health
- Occupational Safety
- Process Safety
- Quality
- Environment
- Security
- Asset Integrity
- Energy
- Knowledge
- Social Responsibility

ISRS Processes

1. Leadership
Good leadership is essential for the effective operation of any organization. Good leadership begins with defining the organization's expectations (purpose, values, goals and policies) and engaging with stakeholders to align with their expectations. Leaders should identify their business risks. The leadership should combine this information to develop a strategy describing what they believe the future will look like and how the organization will respond. Leaders are responsible for defining the main business processes for the organization to guide the behaviour of personnel. Leaders must also demonstrate their commitment to continual improvement through practical leadership and "walk the talk".

2. Planning and Administration
Effective planning and follow-up ensures that business goals are achieved on time, to the desired quality, and on budget. Strategic plans and shorter term business plans detail the individual responsibilities and resources to deliver leadership expectations. Efficient documentation and record systems help ensure efficient business processes and capture organizational knowledge.

3. Risk Evaluation
The first duty of managers is to effectively manage risk. Risk management begins with the identification of hazards, and the analysis and evaluation of the risks the organization and its personnel are exposed to. These hazards relate to the potential loss of occupational health, occupational safety, process safety, environment, quality, security, energy, knowledge and/or social responsibility. Employees must have a good awareness, clear understanding, and a sense of vulnerability to the hazards and risks they are exposed to. A team approach to risk evaluation will drive a strong risk culture in the organization. A hierarchical approach to control of risks should be applied. If elimination and substitution are not possible, then the organization must identify the engineering, procedural and protective equipment controls necessary to make the risk tolerable.

4. Human Resources
People and the knowledge they possess are the most important assets in many organizations. Good Human Resource systems ensure these assets are managed effectively, from recruitment through to leaving the organization. Systems for recognition, discipline and regular performance reviews guide the development of individuals. Organizational change is a constant in the modern workplace and should be guided by an effective change management process including mechanisms to retain critical knowledge and skills.

5. Compliance
Society expects ever higher standards of performance from organizations, which is reflected in a growing body of regulations that must be complied with. Every organization needs a system to identify relevant regulations, codes and standards, assess their impact on the business and ensure they are complied with. Organizations must also ensure they report serious events to the regulator and demonstrate to stakeholders they are in compliance with regulations.

6. Projects
Organizations can consider multiple opportunities that can be realised through one or more projects. From the available opportunities, organizations should formally identify, analyse, evaluate and initiate the most relevant opportunities as project(s). Projects are unique activities that will provide benefits to the organization when realised. Projects have a defined beginning and end. Their unique character introduces risks into the workplace and to stakeholders. This requires careful planning to ensure risks are controlled and that projects are completed on time, on budget and to the desired quality. Detailed specifications are required to ensure customer requirements are understood and met. Formal accountabilities should be defined for each project. Project plans define the goals, responsibilities, resources and risks throughout the project lifecycle. Effective execution and control ensures changes are managed, work is completed correctly, and stakeholder expectations are met. Project close-out must ensure that systems and documentation are updated to address changes introduced by the project. Post-project review ensures lessons are learned for future projects.

7.   Competence

Systematic identification of required competence is the first stage in effective competence management. Personnel must have the necessary competence to execute their jobs effectively. An effective training system is important to identify and deliver the training necessary to ensure individual competence. Training should only be performed to fill an identified need, based on an analysis of existing competence, role requirements, training objectives and employee aspirations. Training should be delivered by competent instructors using appropriate communication techniques and resources. Effective orientation / induction is important for leaders and employees to ensure they are not at risk when they start in a new position. Individuals and groups should be periodically evaluated against identified competence requirements. Competence system evaluation should be carried out to complete the competence management process.

8.   Communication and Promotion

Good communication is essential for effective operation of the business. In an ever-changing workplace effective communication is critical both to inform and motivate personnel. Good communication is more than telling - it should be an interactive process of "giving and getting understanding". Promotion campaigns and varied communication channels should be used to promote improvements in a fresh and interesting way. Management and group meetings should be focused on key issues and co-ordinated to ensure important information is filtered up and cascaded down effectively. Joint committees / councils are often legislative requirements to ensure HSE communication takes place. Coaching is also a good communication technique to promote desired work behaviour. Exceptional group and individual performance should be identified and widely communicated to reinforce correct behaviour. Finally, many organizations also extend their communication activities or strategy to an away-from-work context.

9.   Risk Control

Once risks to the organization have been identified, the controls determined as necessary, according to a suitable control hierarchy, must be in place to manage the risks. Engineering / design controls, including elimination and substitution, are the first choice to manage risks where possible. Administrative controls including operating procedures, rules, work permits, and warning signs and notices are the next choice to mitigate risk.

Personal and environmental protective equipment are the last line of defence. Materials and products should be effectively identified, labelled, stored and inspected to ensure quality is controlled. Finally, other relevant controls should be in place to ensure other management system aspects and processes perform suitably, adequately, and effectively as per their requirements. These include security, energy, and knowledge management, as well as community engagement plans and initiatives.

10. Asset Integrity

Asset Integrity is about the management of physical assets in the workplace to ensure performance requirements are met at optimum cost and managing risks to a tolerable level. The asset integrity programme describes the maintenance, inspection and testing regime for each asset in the asset register. Personnel across different teams must coordinate activities to plan and execute the asset integrity programme. Checks of appropriate areas ensure the general condition of assets are maintained. In addition to the asset integrity program, some assets may require routine or pre-use checks. An effective engineering change management process is essential to ensure risks are managed when new assets are introduced, or existing assets are modified or removed. Finally, inspection, measuring and test equipment also require periodic calibration and maintenance, and should therefore be included in the organization's asset management system.

11. Contractors and Suppliers

In their drive for both effectiveness and efficiency, organizations are increasingly making use of contractors, outsourcing and temporary employees. A major challenge associated with this trend is how to ensure contractors comply with the organization's expectations including values, goals and standards. Effective contractor management requires a rigorous selection process, clear definition of responsibilities, competence checks, adequate supervision and careful monitoring and assessments of performance. Excellent communication is required to ensure effective coordination with company personnel and processes. Effective supply chain management and purchasing ensures that when suppliers are required, they are properly identified, analysed, and selected to ensure materials and equipment are sourced on time, to the desired quality, at the optimum cost, while complying with sustainability-related aspects and requirements of the organization's supply chain(s).

A management system based on ISRS assures the health of your business processes.

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ISRS describes best practice in safety and sustainability management. In addition, ISRS9 includes the requirements for the following international standards which make it an effective tool to guide organizations in improving their systems to meet certification requirements.

- ISO 9001:2015 Quality Management
- ISO 14001:2015 Environmental Management
- ISO 27001:2013 Information Security Management
- ISO 45001:2018 Occupational Health & Safety Management
- ISO 50001:2018 Energy Management
- ISO 55001:2014 Asset Management

12. Emergency Preparedness

Not all accidents can be prevented. Effective emergency preparedness means planning and practising in advance so that, in the event of an emergency, the harm to people, the environment and to the business is minimised. Firstly, potential emergencies should be identified and categorised. Plans should then be developed to respond to these emergencies. Systems for emergency communication should be established and technical systems, for example, for fire protection and emergency power, should be put in place. Emergency teams of experienced personnel should be established to execute the emergency plans and their competence should be assured through regular drills and exercises. Adequate first aid and medical support should be available if required. Finally, organised outside aid with civil / governmental agencies and mutual aid agreements with other companies may be required if the organization could face a major emergency and requires additional assistance.

13. Learning From Events

Learning from events is critical to drive continual improvement in business performance. An effective Learning From Events system transforms undesired events into improvement opportunities. Managers should strive to create a "no blame" culture in the organization to foster high levels of event reporting. Personnel should be particularly encouraged to report near-misses which offer the greatest number of learning opportunities. All events should be risk assessed and investigated appropriately, involving both managers and front line personnel. Investigations must uncover the basic causes of events before determining the necessary corrective and preventive actions. Actions must be tracked to completion and the results communicated to all necessary stakeholders. Insights from events should be periodically reviewed to look for patterns and trends that may need to be addressed.

14. Risk Monitoring

Risk monitoring is essential to provide assurance to managers and other stakeholders that all risks are being effectively controlled. Risk Monitoring builds on Risk Evaluation (Process 3) and Risk Control (Process 9) to complete the risk management continual improvement loop. Effective monitoring should collect data and compare it against goals to determine if outcomes are being achieved, identify where risk controls are inadequate and initiate the necessary improvement actions. Customer satisfaction and employee perception surveys monitor the perceptions of key stakeholders. Behavioural and task observations are important to help the organization understand how work is actually being done and to help reinforce desired behaviours in the workforce. An audit and assurance programme is required to test compliance with, and the effectiveness of, management processes.

15. Results and Review

To survive and prosper a business must achieve good results. Business results are measured simply by comparing actual performance against the goals set by the leadership team (Process 1). The challenge for business leaders is to direct business and work processes to maximize opportunities, manage risks and achieve good business results. Sustained or continually improving performance can be demonstrated by preparing trends of business results. Performance benchmarking may be undertaken by those organizations who wish to compare themselves with industry leaders or 'World Class.' The management system is the leadership team's primary tool to manage risks and drive continual improvement. Formal management reviews are necessary to evaluate the performance of the management system, identify improvement actions and feedback into the strategy and planning process. Social Responsibility increasingly demands that businesses report their sustainability agenda by demonstrating good social, economic, and environmental performance to all relevant stakeholders (identified in Process 1. Leadership).

Software

ISRS software tools facilitate the effective implementation of the management system across an organization. The ISRS software tools are supplied to organizations under license.
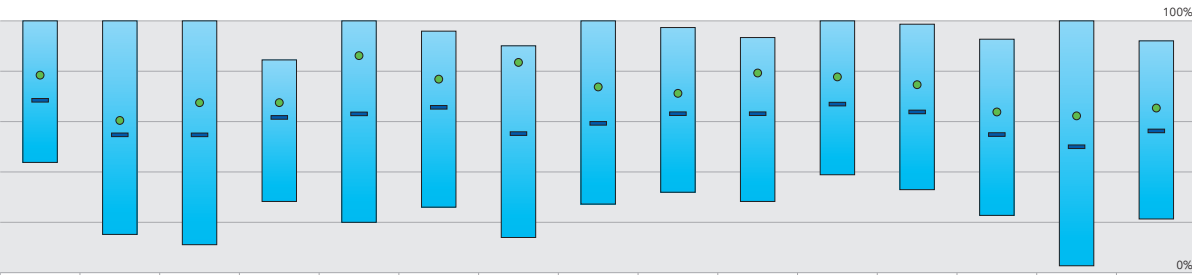
ISRS Summit
ISRS Summit is software to facilitate an ISRS assessment and allows organizations to simply measure, improve and demonstrate the implementation of their management systems.

This web enabled software is available in eleven different languages.

ISRS Book of Knowledge
ISRS Book of Knowledge is an online book of good practice in safety and sustainability management. It is a continually evolving resource that describes good practice for management system implementation using the ISRS framework.

NOTE: ISRS Summit is supplied subject to the Terms and Conditions of the ISRS License Agreement.

Benchmarking

Benchmarking means searching for and comparing with best practice to improve or demonstrate performance. ISRS is a powerful tool to allow organizations to benchmark their safety and sustainability performance against their industry peers.

Benchmarking allows organizations to answer the following questions:

- Is our HSEQ management good enough?
- How good are we compared to our peers in the oil and gas industry?
- Where do we stand when compared to world class?
- How can we demonstrate our performance to our key stakeholders?
- What are our strengths and weakness?
- Where do we need to improve?

Benefits

All companies have a management system but many struggle to get their management system implemented effectively. ISRS can help.

A management system is a framework of controls to manage key processes, organizational risks and drive continual improvement. The management system is important to the operation of every business because it guides the behaviour of personnel in the organization. The management system is the management team's main tool for ensuring safe and sustainable operations. The challenge facing organizations is "How can we get our management system to work more effectively?"

What our clients say...

"We have used ISRS as the backbone to our entire safety management system. Think of ISRS as the DNA to our processes."
General Manager, Sembawang Shipyard.

"Put simply, the ISRS system is a tool which helps us establish, develop, and improve our management systems to achieve our SHEQ objectives and to have a benchmark with world-class international oil and gas companies."
President and CEO, Badak LNG

"Through measurements carried out using ISRS we can show politicians, regulators and stakeholders that we're continuing to improve."
Vice President of BHP Petroleum

"When you operate in 200 countries having a common standard is the only thing that you can rely on. The only way we could do this was using a protocol. We used the protocol as a leadership model. We used it to drive engagement."
Global HSE and Wellbeing Director, Vodafone

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About DNV GL
Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organizations to advance the safety and sustainability of their business. We provide classification, technical assurance, software and independent expert advisory services to the maritime, oil & gas and energy industries. We also provide certification services to customers across a wide range of industries. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight. With origins stretching back to 1864, DNV GL's reach today is global. Operating in more than 100 countries, our professionals are dedicated to helping customers make the world safer, smarter and greener.