



**Focusing on Reliability
To Increase an
Organization's Value**

**DuPont
Sustainable
Solutions**



Focusing on Reliability to Increase an Organization's Value

By Soumik Das

DuPont Sustainable Solutions

The world abounds with uncertainties due to changing country policies, trade wars, pandemic outbreaks, climate change and catastrophic events, to name a few. Other uncertainties exist at the organization level, where people make mistakes, machines break, and systems and processes adjust slowly to the dynamic business environment. Together, these can contribute to significant unreliability in operations for businesses.

However, some industries - such as hospitals, pharmaceuticals, nuclear power plants, and air traffic controls - are well adapted to high levels of risk. For them, errors can have disastrous implications, yet they operate nearly error-free. From an operational perspective, these are highly reliable, sustainable businesses because they focus not only on safety but also have a distinct approach to reliability.

False Assumptions Cause Companies to Overlook Opportunities

For most organizations, the word “reliability” is frequently associated with maintenance or the condition of physical assets. Even those who view reliability as an organization-wide pursuit tend to confine it to those definitions. What’s more, many see reliability as a means to an end, rather than a goal in itself.

Though slowing growth, disruptive new technologies and other sources of uncertainty often spur businesses to accelerate their performance while reducing risk of failures and keeping costs down, there are demonstrable advantages to embracing reliability as a core objective.

Perception	vs.	Reality
Reliability concepts offer the greatest value to certain industries, such as nuclear power or health care.		Reliability concepts can be applied to any industry with similarly positive outcomes.
A reliability focus is about extending the life of plants and machinery by reducing defects.		Reliability helps to reduce failures and defects across all systems and processes, not just plants and machinery.
Reliability is best measured and demonstrated through data.		Reliability extends to corporate strategy and includes aspects of culture, mindset and behavior.
Reliability is the responsibility of maintenance and related departments.		Reliability is an organization-level concept that can apply to any system, process or role.

Today there are real-world examples demonstrating how an organization’s lack of communication and governance combined with poor or delayed decision making, has contributed to avoidable failures resulting in loss of life as well as loss of revenue. Such events are unmistakable reminders of the significance of the robust practices, transparent communication and accountability that are the foundation of a Reliability Centered Organization.

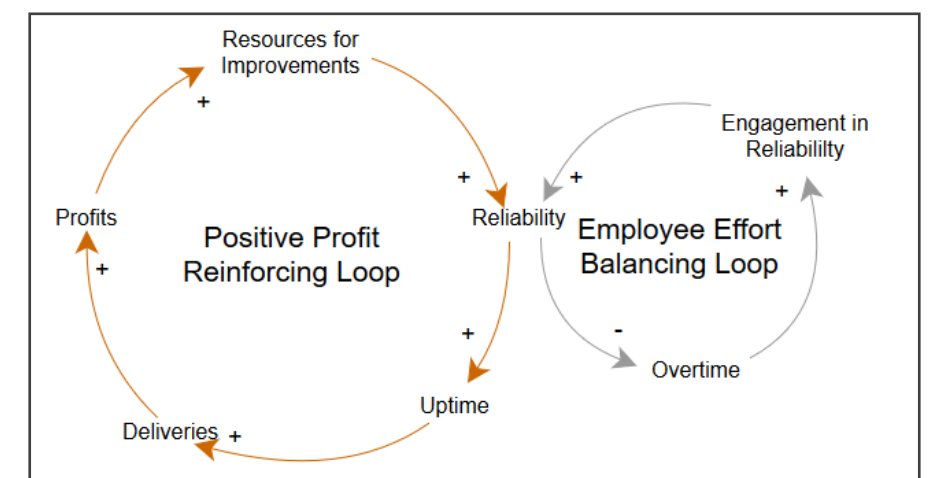
A company in any industry sector that expands its vision of reliability to encompass people and processes across all functions can unlock tremendous value. While the impact may not be as apparent or immediate as on the manufacturing floor, when people across the entire organization stop simply reacting and start proactively behaving reliably—even in the face of a deviation from normal operations—risk declines and operational discipline improves, leading to a cascade of positive effects.

The Reliability Centered Organization—Not a Means to an End, but an End in Itself

Reliability is often considered the steps along a journey that need to be taken to achieve higher quality or financial objectives. However, our experience indicates that striving to become a Reliability Centered Organization as an end goal has a direct impact on sustainability and delivers significant, consistent value. Apart from relentless focus on a failure-free environment, Reliability Centered Organizations can achieve the following as natural consequences:

Reliability Centered Organization (RCO) means every aspect within the business must be operating in coordination with one another to realize an error free and failure free environment and drive higher value.

- Increased ROI
- Greater Profitability
- Highly Motivated Teams
- Enhanced Resilience
- Competitive Advantages
- Stronger Brand Benefits



With continued commitment and practice, reliability becomes more sustainable and establishes the key link connecting employee engagement and the ongoing drive to improve business performance.

A Practical Framework for Creating a Reliability Centered Organization

Leadership is key to embedding the idea of becoming a Reliability Centered Organization into the company's core. Once everyone—from top management to entry-level employees—views processes and systems through the reliability lens, there will be a shift toward an aspirational culture, as well as a mindset that acknowledges the importance of every participant in the company's success.

Uncovering Reliability Risks

While the reliability levers for maintenance are well known, organizations may dig deeper to identify "defects" in other areas of the business. For example:

- Machine idle times can point to a communication gap between operations, procurement and sales. This time could be used to build stock, repair machines, test pilots or utilize space more effectively.
- When the variation in raw material grades is very high, forecasting differences in appropriate processing times can provide sales with accurate stock and refill data.
- New software implementations can reduce discipline around data input, leading to defective models and forecasts. Identifying these issues allows managers to address the potential loss of information and reliability.

Key Characteristics of Reliability Centered Organizations

Risk Focused Mindset	Averse to Simplification	Dynamic Control and Resilience	Expertise
<ul style="list-style-type: none"> • Reliability goals are owned by all departments • Regular performance benchmarking • Continual self-evaluation seeks out problems that could lead to business or operational risks • Encourage fearless objective reporting of near misses and failures • Analyze risks and potential failure modes 	<ul style="list-style-type: none"> • Conduct multi-disciplinary analysis of incidents • Avoid tendency to trivialize any error or incident • Plan actions and mitigation • Use effective tools to communicate and sensitize people to risks and incidents 	<ul style="list-style-type: none"> • Acknowledge that risk management is not static • Activities are routinely monitored, reinforced and verified • Emphasize importance of collaboration across multiple disciplines • Define and track the right KPIs 	<ul style="list-style-type: none"> • Expertise is fostered and leveraged to solve errors at systemic levels • Promote feedback and opinions for better solutions • Individuals and teams who demonstrate positive change, behavior or performance are suitably rewarded

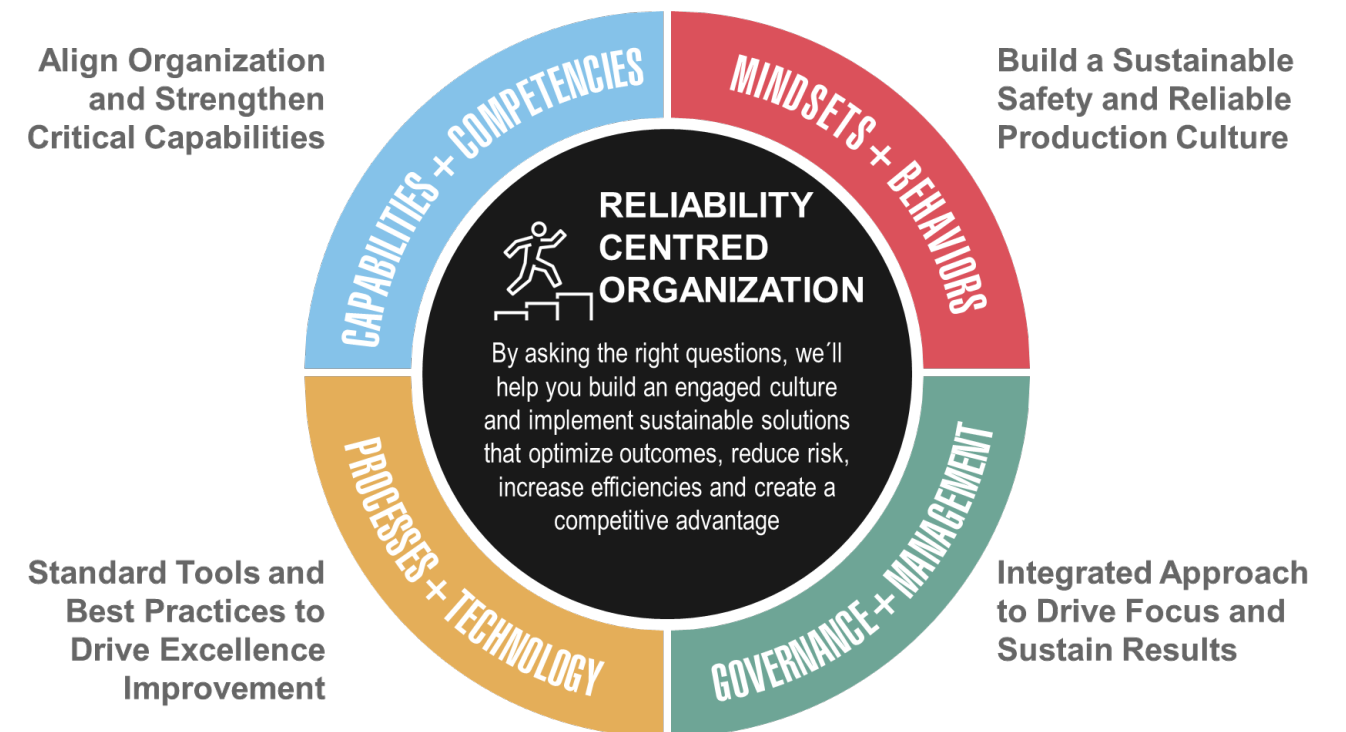
Governance

- Leadership encourages and strengthens interventions from line functions to minimize the impact of adverse events and risks
- Regular review across levels drives collaboration
- Learning is captured and recommendations applied across the organization

A Proven Approach to Establishing a Reliability Centered Organization

DSS has developed a proven approach for establishing a Reliability Centered Organization that comprehensively covers key building blocks for a successful outcome.

Critical Elements for Establishing a Reliability Centered Organization



Value is realized by driving reliability through effective governance and managed processes across the organization. This includes technical aspects such as assets, operations and supply chain, as well as organization design and capabilities, effective leadership, and a sustainable culture. Key considerations include:

Reliability Policies

Becoming a Reliability Centered Organization begins with top management. To this end, organizations need to define concise reliability policies that will drive principles, standards, procedures and guiding instructions. These policies must be easily understood by all employees and must come from the highest levels of management to convey credibility, legitimacy and constancy of purpose.

Organization Structure and Type

The appropriate organizational structure, as well as identifying where accountability lies, is critical in establishing a Reliability Centered Organization. Various structures can be suitable depending upon an organization's unique challenges and characteristics, geographic coverage, products and services.



Key Characteristics of Reliability Centered Organizations	
Organization Type	Characteristics
Site Managed	<ul style="list-style-type: none"> Programs are locally defined and monitored Suited for decentralized businesses where sites are operationally and culturally distinct Metrics are aligned across sites and shared for cross-learning
Monitored Centrally	<ul style="list-style-type: none"> Reliability is the focus of the local site, however accountability for outcome is centralized Applicable for organizations in which products vary across facilities but are all governed by common KPIs Implementation requires robust processes and metrics
Competency Center	<ul style="list-style-type: none"> Reliability protocols are clearly defined by a center of competency or excellence, but site is responsible for strict adherence Experts for critical areas are provided by the center and help in capability building at the site level Competency center analyses data and provides insight for sit action or mitigation
Centrally Controlled	<ul style="list-style-type: none"> A central team defines, designs, implements and enforces reliability aspects across the organization The central team brings expertise and helps run analysis for improvement This top-down approach helps drive consistent improvement across all areas of the organization

Performance Metrics and Key Skills

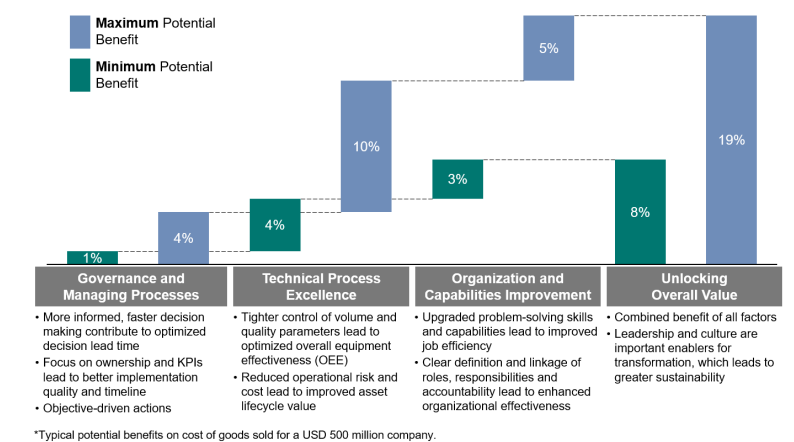
Another important factor is to identify and define metrics for measuring success. Rather than simply pushing to reduce costs, which can lead to erratic behavior, the aim of a Reliability Centered Organization should be to minimize the risk of failure and grow a reliability-driven culture. Apart from expected business and technical skills, a Reliability Centered Organization devotes significant focus to skills related to communication, problem solving and leadership.

How to Drive Reliability

- Define a reliability-centered strategic plan and corporate vision
- Design governance to assure alignment of design and strategy with business objectives
- Standardize work processes, documentation and data
- Conduct a comprehensive Operational Risk Assessment and mitigation plan
- Focus on skills development and training, as well as creating a repository to capture the knowledge of experienced workers
- Perform audits, evaluations and benchmarking to identify opportunities and barriers
- Share knowledge and learnings
- Monitor and ensure consistent performance measurements

Measuring key performance indicators for both people- and process-based efforts may be less straightforward than for equipment and systems, but is no less important—especially because the consequences and impact may not be as immediately evident. Metrics such as hours spent for rework, training hours completed, what percentage of work is planned, how many meetings involve cross-functional teams and so on, can shed light on areas that need improvement.

These efforts can be enabled through digital technology such as Internet of Things (IoT), Artificial Intelligence (AI), Machine Learning (ML) or others. However, it's important to understand technology must be consciously applied in a structured manner and augmented with the right processes, systems and competencies to deliver significant value to business.



Any organization can test these practices by defining a pilot area, auditing processes and systems for opportunities, and developing a strategy for broader organization-wide implementation. Approaches and learnings can be standardized and replicated across the organization, building in proper governance to ensure that each new department and unit aligns with the company's high-level reliability goals.

Reliability—A Clear Priority

The current business environment, with its complex supply chains, variety of assets and technologies, multifold business interdependencies, competitive pressures, and financial, public and statutory compliance requirements is especially challenging. It is important for every organization to realize that robust, reliability-centered processes and practices, clear roles and responsibilities, and accountability, all aligned with company goals and objectives and enabled by talent management and competency development, are critical for reliable, safe and sustainable operations.

About DuPont Sustainable Solutions

A world-class operations management consulting firm, DSS is in the business of saving lives and improving operational performance for our clients for more than 50 years now. We enable organizations to protect their employees and assets, realize operational efficiencies, innovate more rapidly, build workforce capability and undertake cultural transformation. By leveraging the DuPont heritage, deep industry and business process expertise, and diverse team of expert consultants, DSS helps clients turn operations management into a competitive advantage.

With over 700 professionals in 40 countries, we are a proven, trusted advisor to leading industrial companies around the world on operations improvements and workplace safety. DSS has been ranked as top EHS (Environment, Health & Safety) consulting brand for the third consecutive year by the independent research and consulting firm Verdantix. We have also been named a top asset productivity and reliability consulting firm that creates impact for clients across industry sectors by the independent research firm ALM Intelligence.

You will also find additional information about us at www.consultdss.com.

For more information on DuPont Sustainable Solutions, write to us at DSS-India-Insight@consultdss.com or call us at **1-800-103-1021**

**DuPont
Sustainable
Solutions**

