Transformation begins with a need to protect, extract or create value in an organization. Specific to supply chain transformation, whether the objectives are to manage operational risks to protect value, drive cost reduction to extract value, or seek ways to create additional value to achieve the required outcomes; one must extend far beyond the asset, technology and system solutions. A full value of such transformation may not be realized if a business does not clearly articulate outcomes, align mindsets to those outcomes, build capabilities and foster managing processes that demand cross functional collaboration.

How can we realize and maximize value?
Optimum business performance and value is achieved when an organization can unlock the potential of people. Leaders at all levels of an organization have the ability to unlock the potential of their people by creating an environment where people have purposeful work, feel engaged, feel valued for their contribution and are empowered to remove the interferences that diminish performance and erode value.

Leaders have a choice to drive performance. Leaders can choose to either - force compliance and risk developing a culture of fear and discipline that stands as a barrier to performance; or choose to cross the cultural bridge (Figure 1), where results are achieved by engaging people to understand the reasons that drive business excellence by building commitment to doing the right things.

![Figure 1. The DuPont Bradley Curve™ - a proven model for changing organization culture to enable performance](image-url)
To cross the cultural bridge, we as leaders, have to change our mindsets from telling people what to do, to engaging, empowering, enabling and supporting them to bring out their best. When leaders approach organization transformation with the mindset to engage people, understand their roles and how they contribute; leaders enable and foster behaviors that can unlock hidden potential of their people.

**Aurizon - Crossing the cultural bridge to protect value**

Aurizon, a major rail company in Australia began the journey to cross the cultural bridge in 2008 following a number of serious incidents. The goal was to achieve a sustainable culture that valued the safety of people.

Following a 50 percent performance improvement in the first year and a 92 percent improvement by the end of 2013; in 2015 the company achieved 12 months with ZERO lost-time injuries.

By developing safety culture through leadership, the level of engagement between executives and employees has been improved. Such leadership nurtures trust and relationships among employees; empowering employees to further advance safety performance. While driving a safety transformation, the company also recognized overall business performance improvement.

*‘As safety has improved, our business also has improved. Safer companies are more successful as they have better operating disciplines.*"  
Lindsay Cooper - Former Aurizon Executive Vice President Operations

**Collaboration delivers value**

Specific to supply chain transformation, the mindset to foster collaboration between functions that is focused on optimizing the whole integrated supply chain is essential. Without a strong focus on collaboration and integration, there is a risk of misalignment between the elements of supply chain and the business strategy. If parts of the business only focus on their own silos with no understanding of the potential impact on the business, there is a risk that this could erode the overall value of the business. Lack of collaboration, integrated thinking and misalignment - makes it difficult, if not impossible to:

- translate the organization’s strategy into business results,
- engage the organization in improvement and create a passion to win,
- respond quickly to the changing market conditions and the demands of clients.

**Examples of Misalignment between the elements of supply chain and business strategy**

- The sales teams may be looking for the opportunity to satisfy the clients’ every need. What impact is that having on operations’ ability to optimize production if the constant changing of sales orders is driving chaos in the planning process and impacting the ability to satisfy demand and deliver orders?
- What value is generated by the Operations in increasing capacity of products and grades of material they are good at making - if there is no ongoing market for the product?

An integrated approach to supply chain management underpinned by mindsets that focus on continuous improvement, enable people and the continuation of supply chain. This mindset and approach support the execution of business strategy and is a source of constant value creation and competitive advantage.
The question to ask is; to what extent does one need to focus on driving improvement in the non-physical elements? In this context, the non-physical elements are: products innovation, demand management, information sharing and the mindsets and behaviors of the organization that enable collaboration between functions.

To what extent does one need to focus on the whole supply chain; making sure that it is aligned to the business strategy, and at the same time, taking into account one’s ability to be agile and adapt to changes that occur in the market? Alignment, integration and optimization create the capability of the business to win and achieve sustainable business performance.

To create an aligned, agile and adaptive supply chain, it is critical to target the intangible elements, as described earlier. Organizations should work toward mindsets, capabilities, processes and systems in all functions that will enable a cohesive and efficient end-to-end supply chain approach. The development of mindsets and capabilities that encourages everyone to look for ways to improve and seek opportunities to create value for clients is key. An end-to-end approach to supply chain transformation requires a change in mindset from maximization of value for individual functions to optimization of the whole supply chain. Taking a one-size-fits-all approach to improvement, that doesn’t take into account where each part of the business is starting from; could result in a suboptimal performance.

A one-size-fits-all approach has the potential to create a false sense of security that the business understands where it is going, when in fact it could go in a wrong direction. Driving business transformation necessitates an approach that ensures each part of the business understands the outcomes that are required; enabling them to develop the transformation plan that is right from the start.

A Client in South East Asia - Transformation via Integrated Business Excellence

In a recent engagement through deployment of an integrated approach to achieve business excellence, the company, over a 6 month period (diagnostic phase) in a single value chain, was able to identify a potential for improvement of $54 million. In subsequent value chains, over a similar time frame, they were able to identify a further $162 million in potential value, including areas in which they had been previously benchmarked as world class. The company has further value chains and companies to apply their learning to. In their initial phases of operationalizing the transformation across value chains, they have identified and committed to the delivery of $67 million in savings over 18 months, and developed the mindsets, capability and momentum to progress toward achieving total potential.

Driving transformation based on an approach that builds understanding of the outcomes required, and one that develops leadership mindsets and behaviors that engage and empower people; allows each element of the supply chain to develop the necessary capabilities and processes to deliver the outcomes needed. The result is that the entire business begins to transform and is better positioned to manage conflicts that could arise.
Beginning the Change – Leaders’ Mindsets Matter

To drive significant change as leaders, we first have to change our mindsets to achieve sustainable outcomes, albeit this can be the greatest challenge of all. Leaders must begin by taking a broader approach to change than we may have had in the past. In particular, leaders need to embrace an openness to change, committing to visibility and transparency on the vision and mission of the company and at the same time engaging everyone in the process of improvement.

Critical Mindsets to achieve sustainable outcomes

- Openness to change and focus the future.
- Commitment to visibility and transparency.
- Willingness to prioritize and make choices.
- Action Orientation - 60/40.
- People are not the problem.

- Accountability as personal choice.
- Everyone, everyday involved in improvement.
- An expectation and explicit request that everyone must constantly strive to improve their skills, capability and performance.

Enabling Mindsets for the DuPont Production System
Failure to take action is a barrier to change

One of the significant risks to any change is paralysis by analysis and the resistance to take action given the uncertainty of the outcome. Underpinning the creation of a culture of continuous improvement is the development of a learning culture. Even in business, if we don’t make mistakes then we don’t learn.

A 60/40 mindset when driving change in business helps to prevent taking no action at all. So long as the changes pose no risk to the safety of people and are well managed with the intent to learn, take action, learn and adjust then action should be taken. 60/40 reinforces the Lean Principle of PLAN – DO – CHECK – ACT.

Architecture for Change

While the operationalization of strategy and execution of change is complex and challenging, the principles and model that underpin success are simple.

As illustrated in figure 2, it is critical to ensure that the business managing processes provide the connection from vision and business strategy to products and performance needed to stay competitive and meet clients’ needs. Make sure that the right signals are sent throughout the supply chain to make and deliver the right product or service in the right place at the right time for the right cost. Monitor the performance to track execution of outcomes and be responsive to changes in the market.

Figure 2. Integrated Supply Chain Organization

The integrated business management model provides the framework to bring alignment and collaboration between all the pieces. The integration of processes with the functions and actions (Figure 3) form a cohesive and efficient End to End approach to supply chain that focuses on continuous improvement.
The principles and model are built on discipline and commitment to integrated business management to achieve customer excellence and sustainable business performance.

Sibur - Taking an Integrated Approach

“We have witnessed an amazing transformation in how people treat each other and in the motivation and participation of our front-line workers. That is not an improvement one can easily put a financial figure on, but the positive effect on how we work together definitely has an impact. Output has increased and we have realized significant financial benefits. We are definitely narrowing the competitive gap we set out to close and in the process are gaining incredible momentum with our people.”

Vasily Nomokonov, Managing Director, SIBUR

To operationalize change with the intent of unlocking the hidden potential in the business, the entire business needs a different way of thinking.

Too often, improvements begin with preconceived solutions that quickly lead to capital investment projects that begin and end with engineering or technology solutions, managed and delivered by engineering or technology teams. While many of these projects are necessary and deliver efficiencies, the approach results in over-investment, budget and schedule delays, and failure to achieve the desired level of performance. The concern is that they leave the intangible improvements untouched and the hidden potential of the organization locked away.

To unlock the potential and ensure maximum return from investment, businesses should take a holistic approach to change, as illustrated in figure 4. Whether the focus is to protect, extract or create value, the approach is agile and adaptable.
Figure 4. A holistic approach to change

**Qantas - Achieving value extraction through a focus on value protection**

Qantas, a national carrier of Australia, set out to change its level of people safety performance to be equal to the safety record of its fleet. Through beginning with end in mind, engaging and empowering people, developing capabilities and best practice processes, the airline was able to realize $500 million in savings over 5 years over and above the change in safety performance and a 500 percent return on the investment to achieve the change.

"The safety and well-being of our people is a constant priority. A great deal of pain and suffering, as well as millions of dollars associated with rehabilitation, equipment damage, reduced productivity and other incident consequences, have been saved."

Margaret Jackson, Chairman and Geoff Dixon CEO, Qantas Airways Limited

**Build Capability to Execute Improvement**

As all the parts of the organization begin to align to the business strategy and understand the improvements that need to be made to achieve the required outcomes; it is critical to ensure that the capability exists to execute improvements. This means building a deep improvement capability throughout the organization. This capability includes (Figure 5):

- The ability to make *do it now* decisions where the need and way forward is clear,
- Enabling and empowering teams throughout the business to **problem solve** in a structured way,
- Consistent, timely execution of **small improvement projects** with confidence,
- Skills to identify, plan and execute large improvement projects (include complex engineering, technology, people and process transformations) that lead to high gain value release.

**Figure 5. Capability improvement framework**

**Southeast Asian Petrochemical Company – Rapid Development of Improvement Project Capability**

In a period of 5 months, a team of 10 project leaders were trained and assigned a series of projects linked to business strategy that identified and developed solutions with a recurring value of $1 million per year. This demonstration of capability to rapidly solve previously unsolved problems is leading to the determination to continue to develop the capability to execute high value improvement projects and tap into value that was previously locked up.

**Effective Decision Making Supports Transformation**

As change gains momentum, more people are engaged and empowered to improve, consequently the number of identified improvement opportunities increase rapidly. With many opportunities to work on and only finite resources available, having effective management and decision making processes are critical. Effective decision-making processes enable the management of trade-offs to ensure that outcomes are achieved.

Effective decision-making processes support:
- Accountability for outcomes,
- Decisions based on facts and data,
- Working on only the things that are aligned to the organization’s strategy,
- Involvement of the right people in the right way,
- Disciplined tracking to execution and release of value.

Clear decision-making processes and making sure that the right decisions are made at the right levels of the business ensures the right outcomes are achieved.
Delivering sustainable business performance

Within DuPont and with clients, we have achieved success through a simple model for achieving sustainable performance—using an Integrated Production System Model (Figure 6). An Integrated Production System, which DuPont has successfully implemented at more than 200 owned sites globally, is a sustainable framework comprising five inseparable major components: the required business outcomes, technical model, capability building, mindsets and behaviors and managing processes.

Figure 6. Integrated Production System - a framework for driving change

1. **Understanding the required business outcomes**: At the organizational level, this is clarity of the strategy. At the local level, it asks how does my part of the business support the overall objectives and how do we support the next step of the process?

2. **Technical Models**: New technical models will be needed, whether they be a new facility, or a new sales process. The key is to make sure the technical models are fit for purpose to deliver the outcome in step 1.

3. **Capabilities**: What are the critical capabilities to deliver success? This could be teamwork for some, or learning a new functional capability for others. The key is to tailor capability development to the needs of the individuals to execute their work.

4. **Mindsets and Behaviors**: What are the critical mindsets that are needed to achieve success, as leaders and as individuals? How do my behaviors motivate, engage and empower others to perform?

5. **Managing processes**: It is critical to ensure that we have effective management processes that include performance management and monitoring of outcomes, and that we make the adjustments necessary to deliver business outcomes while ensuring the business is aligned, adaptive and agile.

In its simplest form, the integrated production system is a methodology to organize and deliver continuous improvement in a way that fully engages everyone. It provides a framework designed to ensure the organization has the capability to achieve, sustain, and build upon a step change in operating performance.

The system is an integrated and balanced operating model that engages the entire organization, addresses the main challenges for a successful implementation and delivers daily practical results. The production system model provides a consistent approach to driving sustainable performance of the organization, allowing each part of the business to start where it is and to continuously improve toward execution of strategy.
A consistent and integrated approach to supply chain transformation enables the creation of a culture of continuous improvement and sustainable performance. This approach allows an organization to tap into the hidden and locked up potential that exists at the points of integration along the supply chain, while allowing each part of the business to engage and empower people to maximize the performance. The end result is the ability to continuously maximize the value of the individual parts, while delivering value and sustainable performance by optimizing the whole supply chain. This creates a business that is aligned, agile and able to adapt to continuously win in dynamic and constantly changing markets.

In summary, success is achieved by unlocking the hidden potential of an organization and its people. Businesses should focus on the required outcomes for success, develop the mindsets and behaviors of all people, beginning with leaders, build the necessary organizational capabilities, embed best practice processes and technologies, and foster managing processes that demand cross functional collaboration.

### DuPont – Increasing the value from improvement strategies

In 2006, DuPont began deploying the Integrated Production System approach to align the organization, engage the workforce, and achieve bottom-line results. The success of DuPont Production System DPS, both in terms of its impact on the culture at the sites and the business results, has far surpassed our expectations. To date, this system has been deployed in more than 200 sites globally.

The deployment of the approach described, resulted in a 4x increase in annual gross value of improvements delivered by Integrated Operations - inclusive of supply chain, (pre-tax earnings basis):
- 2009 – 2012 performance - more than $1B/year.

### About DuPont Sustainable Solutions

DuPont Sustainable Solutions (DSS) is one of 8 DuPont businesses. Bringing customers the benefits of an integrated global consulting services and process technology enterprise, DSS applies DuPont’s real-world experience, history of innovation, problem-solving success, and strong brands to help organizations transform their workplaces and work cultures to become safer, more operationally efficient and more environmentally sustainable.

For more information, visit our website at:
[www.sustainablesolutions.dupont.com](http://www.sustainablesolutions.dupont.com)