

A Business Excellence Framework

for LNG Operators

**EVOLVE**
THE ART OF IMPLEMENTATION



Business Excellence

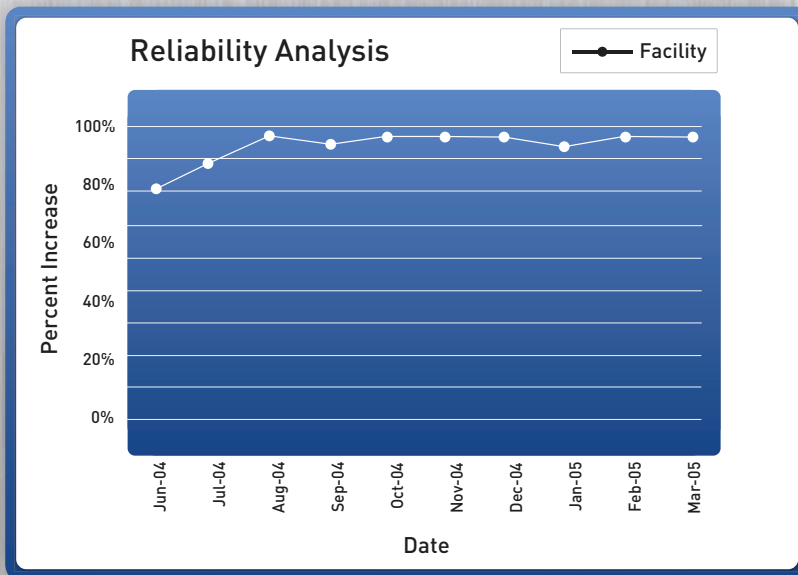
- ...is a philosophy of leadership, teamwork, development and problem solving that delivers ongoing results
- ...is about optimizing the value chain by removing waste and excess
- ...is about continually focusing on customers' needs
- ...is about achieving best in class performance in all areas of the asset by optimizing activities and processes
- ...is about sustaining improvements over time



Organizational Transformation takes a company from good to great.

Case Study: When Evolve began with this LNG operator, the business was already a success – it had successfully commissioned three plants or trains, and a fourth train was already under construction. They had experienced rapid growth and represented over \$3 billion in assets and 1.6 bcf (billion cubic feet per day) of gas processing capacity. However, its leadership team recognized that what they had achieved so far was only the beginning of the journey.

Using its Framework, Evolve helped this LNG company achieve a significant improvement in business performance in a way that also created new management and leadership capability across the business.



97.7% Overall Plant Reliability

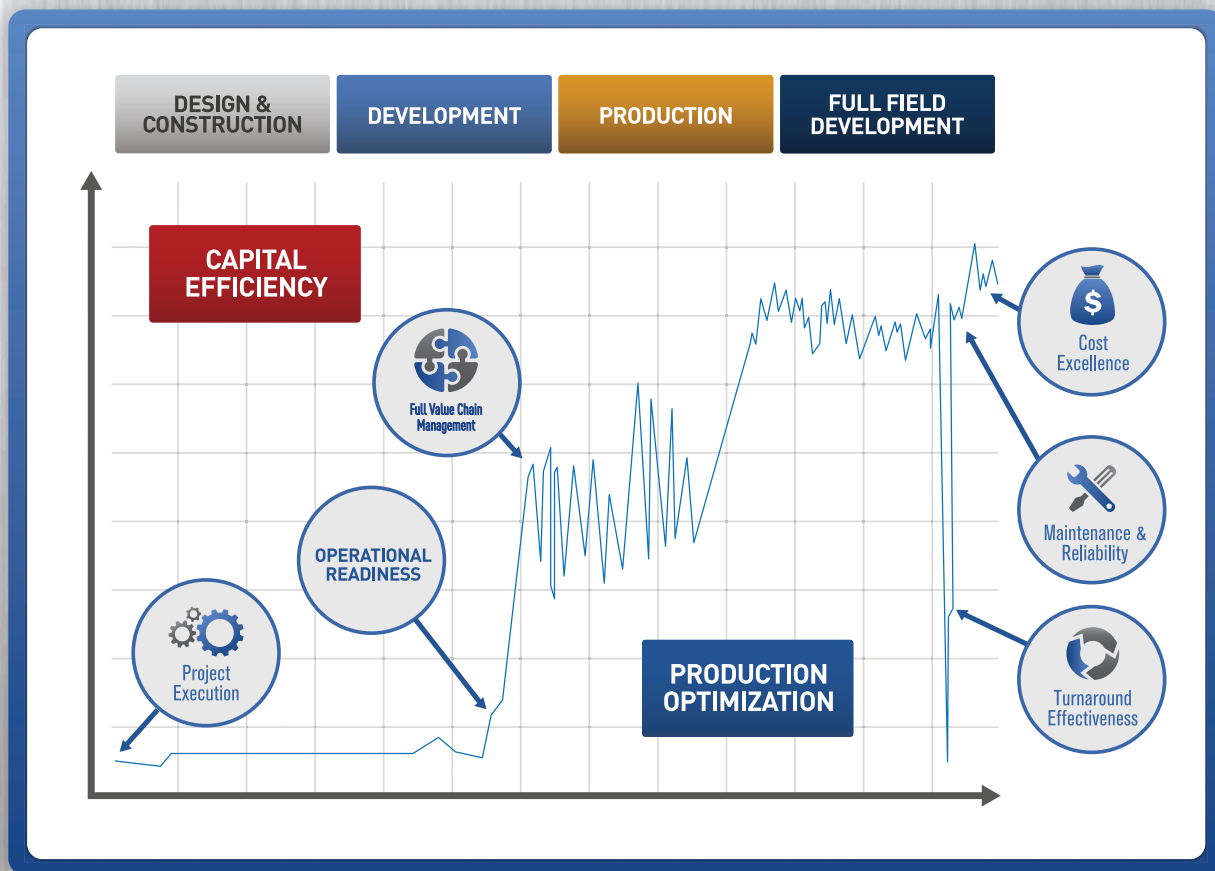
2.0% Year-on-Year Capacity Growth

Visible change in capability, motivation and confidence in leaders and managers



Achieve your best day....every day!

Long term success in LNG requires engaged and capable teams using clear and common ways of working to deliver continuous improvement throughout the lifecycle of an asset.



“Evolve’s coaching has helped my people to address real business issues in a way that has added value while building their capability and confidence. I appreciate Evolve’s ability to coach me and my senior team as well as employees at the shop-floor level and link those interventions to drive business improvement.”

President, LNG Operations



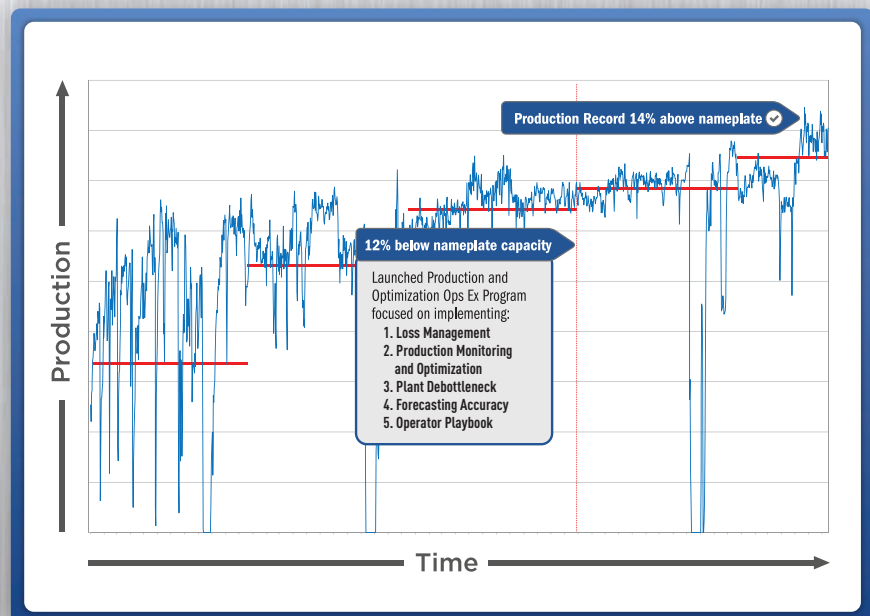
Production Monitoring & Optimization

Optimizing production processes from oil & gas processing operation.

Case Study: This oil & gas processing operation was not meeting nameplate capacity and leadership decided they needed to take a different approach in order to improve performance. The new approach was to launch an Operational Excellence program. This program produced results beyond what they thought possible.

The chart to the right shows growth in daily production and reliability. When we started, they were averaging 12% below the nameplate capacity. The OE Program engaged both the Maintenance and Production teams, so that once this happened they began to realize improvement almost

immediately. But when these teams introduced new tools and behaviors associated with loss management, improved forecasting, well optimization, plant debottlenecking and an operator playbook, they took the process much further than even they believed possible. They are now consistently achieving 14% above nameplate capacity, with no major engineering changes or CapEx! This was achieved by learning and practicing new skills and by getting the whole team engaged and excited about what they were trying to achieve.



Critical questions on the path to Business Excellence in LNG

- To what extent do your management meetings focus on using performance data to make decisions, drive actions and reinforce accountability? How consistently does your team exhibit leadership behaviors and serve as role models to others?
- How will you minimize variation in weekly and daily production to maximize throughput and minimize upstream and shipping disruptions? What would the value of reduction variation by 5%-10% be worth? How will you track production losses and eliminate them through root cause analysis and continuous improvement?
- How consistent are panel operator interventions across shifts? To what extent are you controlling the use of chemicals in the process?
- How well is maintenance work being planned and scheduled? What metrics do you have in place to track and manage workforce utilization, schedule attainment and "break-in" work?
- How effective is your reliability program in reducing downtime? Are you satisfied with the overall performance of maintenance processes and the reliability of your assets?
- How effectively are your turnarounds executed? What is the on-time and on-budget performance? To what extent are turnarounds actually resulting in improved plant reliability and operational compliance?
- How well are your projects being executed? What is your current project velocity (e.g., average lead time to complete a project)? How fit-for-purpose is your project execution process? To what extent can it handle major projects as well as small projects and MOCs? What value are your projects really delivering?
- How are you forecasting and planning production over the short-, medium- and long-term? Which functions need to coordinate the most in order to minimize disruption to plant operations?
- How robust are your talent management and organizational development processes? To what extent is the organization proactively measuring, managing and improving the talent lifecycle from workforce planning and acquisition, people development and performance management through to rewards recognition and retention? How prepared are you to scale and grow the organization into the future?
- How are you driving and supporting continuous improvement efforts across the business? What tools and techniques are you leveraging? How are you building internal capability so that people can systematically identify and solve problems for themselves?
- How well are you managing your full value chain (upstream suppliers, gas processing, shipping, suppliers) to maximize throughput and minimize unplanned production costs and demurrage due to upstream outages, gas blend, tank tops, etc.? What innovation processes do you have in place for optimizing gas blend and mutual aid?

Contact Information & Questions

Evolve Partners helps clients implement strategic programs that deliver significant shifts in profitability. We work with premier clients in the Energy and Process industries to deliver safety, production, cost and project delivery improvements that are different – different because our clients' results continue to improve well after we're gone.

Evolve Partners, US Houston

Galleria Financial Center
5075 Westheimer Road, Suite 1177
Houston, TX 77056
+1 (281) 661-5000 Phone
infoUS@evolve.cc

www.evolve.cc

Evolve Partners, Canada Calgary

Suncor Energy Centre
#5100, 150-6th Avenue S.W.,
Calgary, AB T2P 3Y7
+1 (403) 538-2147 Phone
infoCAN@evolve.cc

www.evolve.cc

