

## OVERVIEW

|                       |                                                                                                                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Client:               | International Drilling Contractor                                                                                                                                                               |
| Industry Application: | Drilling Performance & Asset Reliability Optimization                                                                                                                                           |
| Industry:             | Oil & Gas   Drilling Operations                                                                                                                                                                 |
| Solution:             | SIS AI-Driven Smart Rig Performance Platform                                                                                                                                                    |
| Key Benefits:         | Reduced Non-Productive Time (NPT)   Improved Asset Reliability & Availability   Predictive Maintenance   Real-Time Equipment Intelligence   Enhanced Operational Safety   Lower Operating Costs |

## BUSINESS CHALLENGE

Drilling operations represent one of the most complex and asset-intensive environments within the energy industry. Critical equipment operates continuously in demanding conditions where reliability, safety, and operational performance are essential to maintaining efficient drilling operations.

Many drilling contractors continue to rely on periodic inspections, fixed maintenance intervals, historical maintenance records, and operator experience to identify equipment issues. While effective to a degree, these approaches often identify issues only after equipment performance has begun to deteriorate, increasing the risk of failures, non-productive time (NPT), safety incidents, and higher operating costs.

As drilling programs become increasingly complex, operators require greater visibility of equipment condition, performance trends, and emerging failure risks to improve reliability, optimize maintenance activities, and reduce operational disruption.

## BUSINESS DRIVERS

- Reduce non-productive time (NPT) and operational disruption.
- Improve equipment reliability and asset availability.
- Enhance safety through earlier identification of equipment issues.
- Optimize maintenance activities and reduce unnecessary interventions.
- Improve operational visibility and decision-making through real-time equipment intelligence.



## SIS VALUE DELIVERED

SIS enables drilling contractors to transition from reactive maintenance practices to a predictive, data-driven operating model. By combining real-time equipment monitoring, predictive analytics, and operational performance insights, operators can reduce NPT, improve asset reliability and availability, enhance safety, and optimize maintenance expenditure.

## CHALLENGES

Drilling contractors operate in increasingly demanding environments where equipment reliability, maintenance efficiency, and operational performance are critical to safe and profitable operations.

- Limited visibility of real-time equipment condition and performance
- Reactive maintenance drives higher repair and operating costs
- Unplanned downtime reduces drilling efficiency and asset utilization
- Difficulty identifying early-stage degradation before failures occur
- Fragmented operational and maintenance data across multiple systems
- Limited ability to accurately forecast maintenance demand and lifecycle costs

## OPERATIONAL & COMMERCIAL IMPACT

Failure of critical drilling systems can result in significant operational and commercial consequences, including:

- ▶ Reduced drilling efficiency and increased non-productive time (NPT)
- ▶ Higher maintenance expenditure due to reactive intervention
- ▶ Increased operational disruption and schedule delays
- ▶ Reduced asset availability and drilling performance
- ▶ Increased personnel exposure during inspection and maintenance activities
- ▶ Higher lifecycle cost resulting from unnecessary maintenance actions

As drilling day rates and operating costs increase, even short periods of unplanned downtime can create substantial commercial impact.

Operators require a more predictive and intelligence-led approach to improve drilling performance, optimize maintenance planning, and reduce operational risk.

## WHY CHANGE IS REQUIRED

Drilling operations generate significant volumes of equipment, maintenance, and operational data. However, without real-time visibility and predictive analytics, developing equipment issues often remain hidden until performance is affected or failures occur. A more proactive, intelligence-led approach is required to improve reliability, optimize maintenance planning, reduce operational risk, and minimize non-productive time (NPT).



⚡ Reduced NPT

⚡ Enhanced Operational Efficiency

⚡ Lower Operating Costs

⚡ Improved Asset Reliability

⚡ Predictive Maintenance

## SIS AI-DRIVEN SMART RIG PLATFORM

SIS combines real-time equipment monitoring, operational data integration, predictive analytics, and digital workflow automation to provide a single intelligent operating environment for drilling performance, equipment reliability, safety, and operational risk management.

### CONNECTED RIG INTELLIGENCE ECOSYSTEM



### TYPICAL PERFORMANCE IMPROVEMENTS



**REDUCED NPT**  
**25-50%**  
Less downtime, more drilling time



**IMPROVED RELIABILITY**  
**30-60%**  
Fewer equipment failures & breakdowns



**LOWER MAINTENANCE COSTS**  
**15-30%**  
Optimized maintenance & spare parts



**ENHANCED SAFETY**  
**20-40%**  
Fewer incidents, safer operations



**BETTER DRILLING PERFORMANCE**  
**5-20%**  
Higher ROP & well delivery efficiency



REDUCED  
NPT



PREDICTIVE  
MAINTENANCE



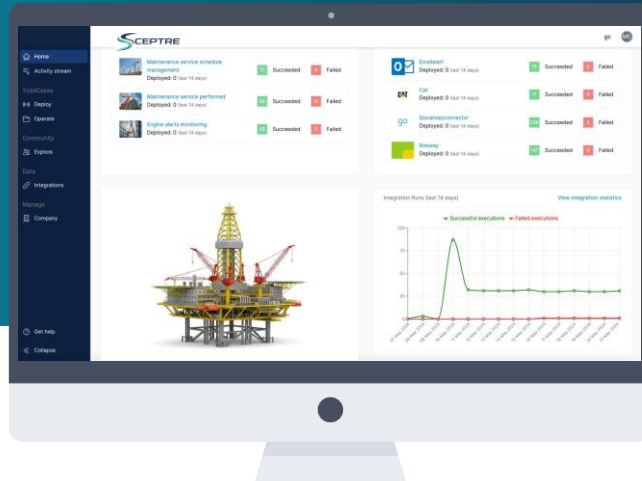
OPERATIONAL  
SAFETY



DRILLING  
PERFORMANCE



ASSET  
RELIABILITY



### TYPICAL PERFORMANCE IMPROVEMENTS

| KPI                      | Improvement        |
|--------------------------|--------------------|
| ▶ Non-Productive Time    | 25-50% Reduction   |
| ▶ Equipment Failures     | 30-60% Reduction   |
| ▶ Maintenance Costs      | 15-30% Reduction   |
| ▶ Rate of Penetration    | 5-20% Improvement  |
| ▶ Safety Incidents       | 20-40% Reduction   |
| ▶ Equipment Availability | 10-20% Improvement |
| ▶ Fuel Consumption       | 5-10% Reduction    |
| ▶ Asset Life             | 10-25% Increase    |

### BUSINESS VALUE DELIVERED

SIS transforms drilling operations through real-time equipment intelligence, predictive analytics, and operational performance optimization.

By providing early visibility of equipment degradation and emerging failure risks, SIS enables operators to reduce non-productive time (NPT), improve asset reliability and availability, enhance safety, and optimize maintenance planning and operating costs.

### ENGINEERING-LED APPROACH

SIS combines operational technology, predictive analytics, equipment expertise, and real-time performance intelligence to help drilling contractors improve reliability, reduce non-productive time (NPT), optimize maintenance activities, and enhance overall drilling performance.