

# Performance Optimization



**MHWirth's optimization service increases your operational continuity and efficiency as well as equipment reliability and HSSE performance. This results in reduced total well cost. To achieve this, our optimization process monitors, analyzes, recommends and implements relevant actions in close co-operation with our customers.**

## Performance Survey

MHWirth's highly experienced performance engineers will visit your drilling rig to monitor performance and operational interaction of your drilling equipment, system and operators.

A structured and documented high-level report provides you with in-depth information on the topside performance of your rig. The report also includes achieved improvements during the visit and further recommendations.

## Crew Optimization

An optimized crew prevents unwanted events in the well and achieves high continuity in operational performance.

Our training qualifies your crew to prepare and operate the equipment optimally, as per the original equipment manufacturer (OEM) sequence description. Crew optimization also includes competence mapping, identification of best practice and knowledge transfer.

## Maintenance Optimization

MHWirth's optimized maintenance recommendation will ensure optimum operation at the lowest possible cost without compromising on HSSE. Our cost effective maintenance evaluations give detailed proposals for possible cost reductions, optimization in operation and the use of maintenance resources.

## Technical Optimization

To achieve maximum operational performance, reliability and availability we optimize the technical condition of your equipment and systems. We evaluate single machine performance as well as machine interaction during execution of operational sequences.

Another important factor in optimization is the functionality of human machine interfaces and technical applications.

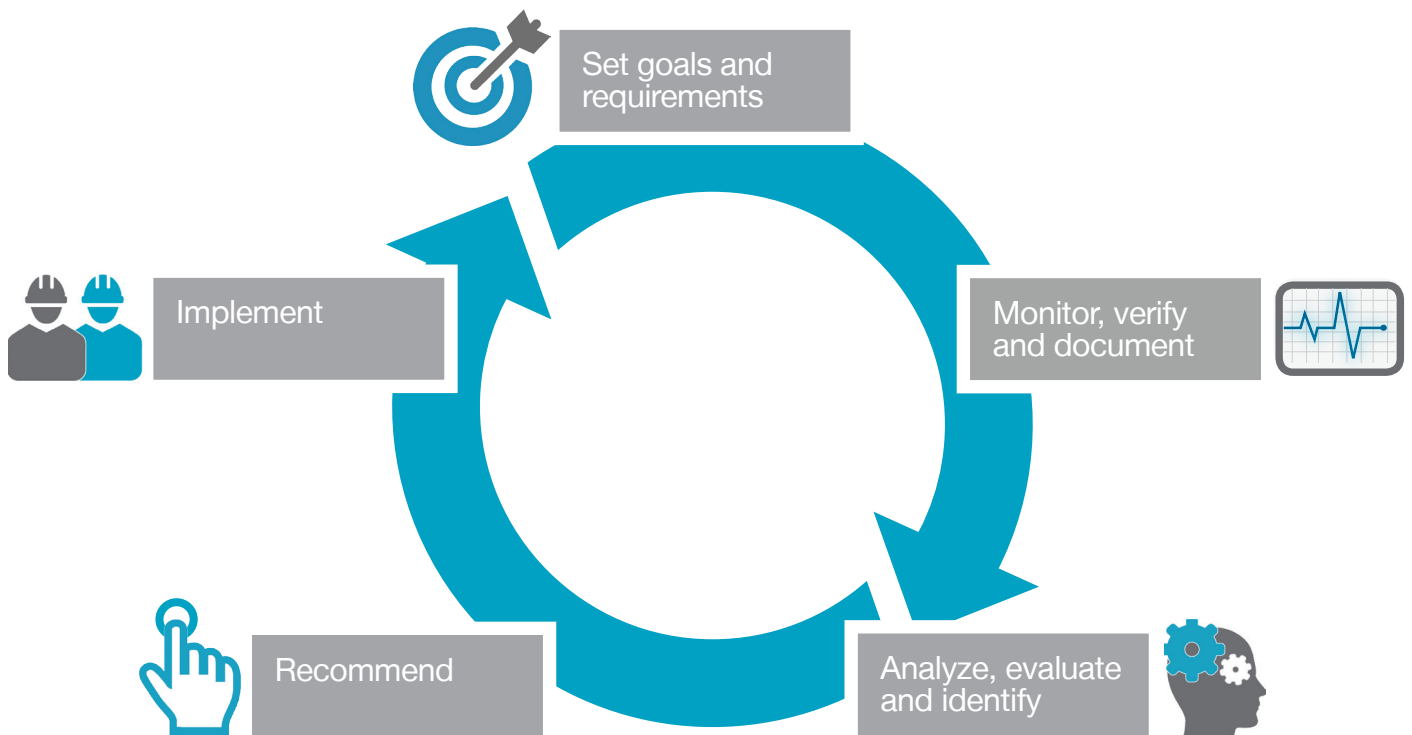
## Benefits

- Highly experienced personnel with extensive knowledge of MHWirth equipment and systems
- In-depth understanding and expertise in complete packages and systems, in addition to knowledge about single products
- High-quality OEM competence, providing performance optimization "from A to Z" over the complete value chain



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## Optimization Performance Process (OPP)



	Crew Optimization	Maintenance Optimization	Technical Optimization
Goal	<ul style="list-style-type: none"> <li>Optimal operation</li> <li>Aligned crews</li> </ul>	<ul style="list-style-type: none"> <li>Dynamic maintenance program</li> </ul>	<ul style="list-style-type: none"> <li>Optimal technical limit</li> <li>HSSE improvements</li> </ul>
Focus	<ul style="list-style-type: none"> <li>Crew</li> <li>Procedures</li> <li>Best practise</li> <li>Continuity</li> </ul>	<ul style="list-style-type: none"> <li>Maintenance task</li> <li>Spare parts usage</li> <li>Equipment utilization</li> </ul>	<ul style="list-style-type: none"> <li>Technical limit on system and equipment</li> <li>Reliability</li> <li>Availability</li> </ul>
Key tasks	<ul style="list-style-type: none"> <li>Competence mapping</li> <li>Identify best practice</li> <li>Knowledge transfer</li> </ul>	<ul style="list-style-type: none"> <li>Monitor</li> <li>Identify</li> <li>Recommend</li> </ul>	<ul style="list-style-type: none"> <li>System tuning</li> <li>Upgrades</li> <li>Modifications</li> </ul>
Tools	<ul style="list-style-type: none"> <li>Performance audit</li> <li>Training</li> <li>Simulator</li> <li>Performance analyzer</li> </ul>	<ul style="list-style-type: none"> <li>Prognostic health management</li> </ul>	<ul style="list-style-type: none"> <li>Optimization simulator</li> </ul>

Data is subject to confirmation by the manufacturer.