
Technology vision & automation in ports

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Liebherr maritime cranes



Technology vision & automation

Port automation evolution

- First automated port: Rotterdam – 1993
- Today: ~45 ports are automated
- Representing ~3% of ports worldwide





Technology vision & automation

Port automation and innovation - potentials

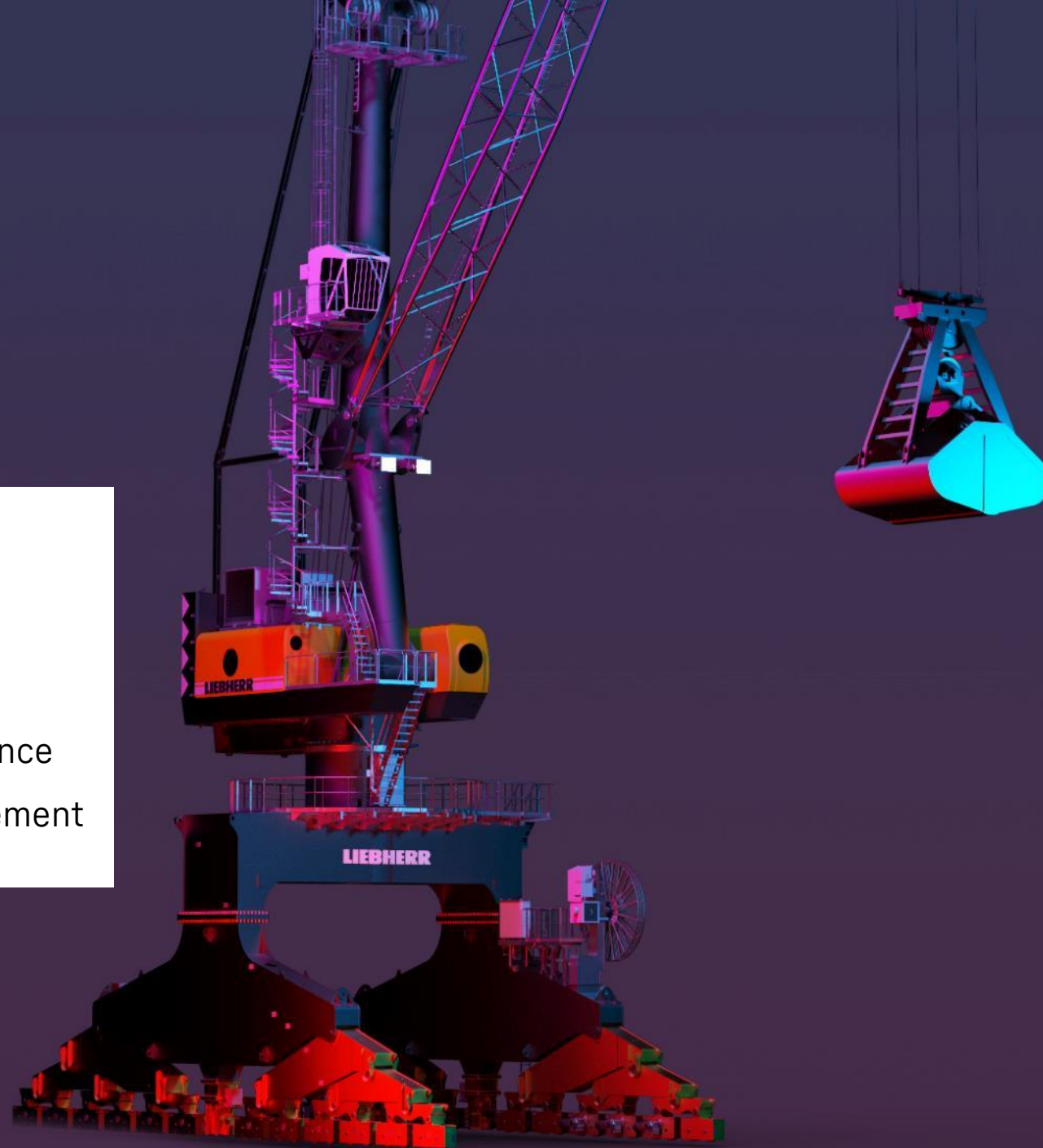
Increased investments

Increased efficiency

Lower maintenance and operational costs

All-Electric LPS 420E

- All drives electric, no hydraulic
- High turnover performance
- Efficient power management



Performance data

- 124 t maximum SWL
- 110 m/min hoisting speed
- 1.6 rpm slewing speed



Technology vision & automation in ports

Serving you with no limits

Liebherr Remote Innovative Solutions:

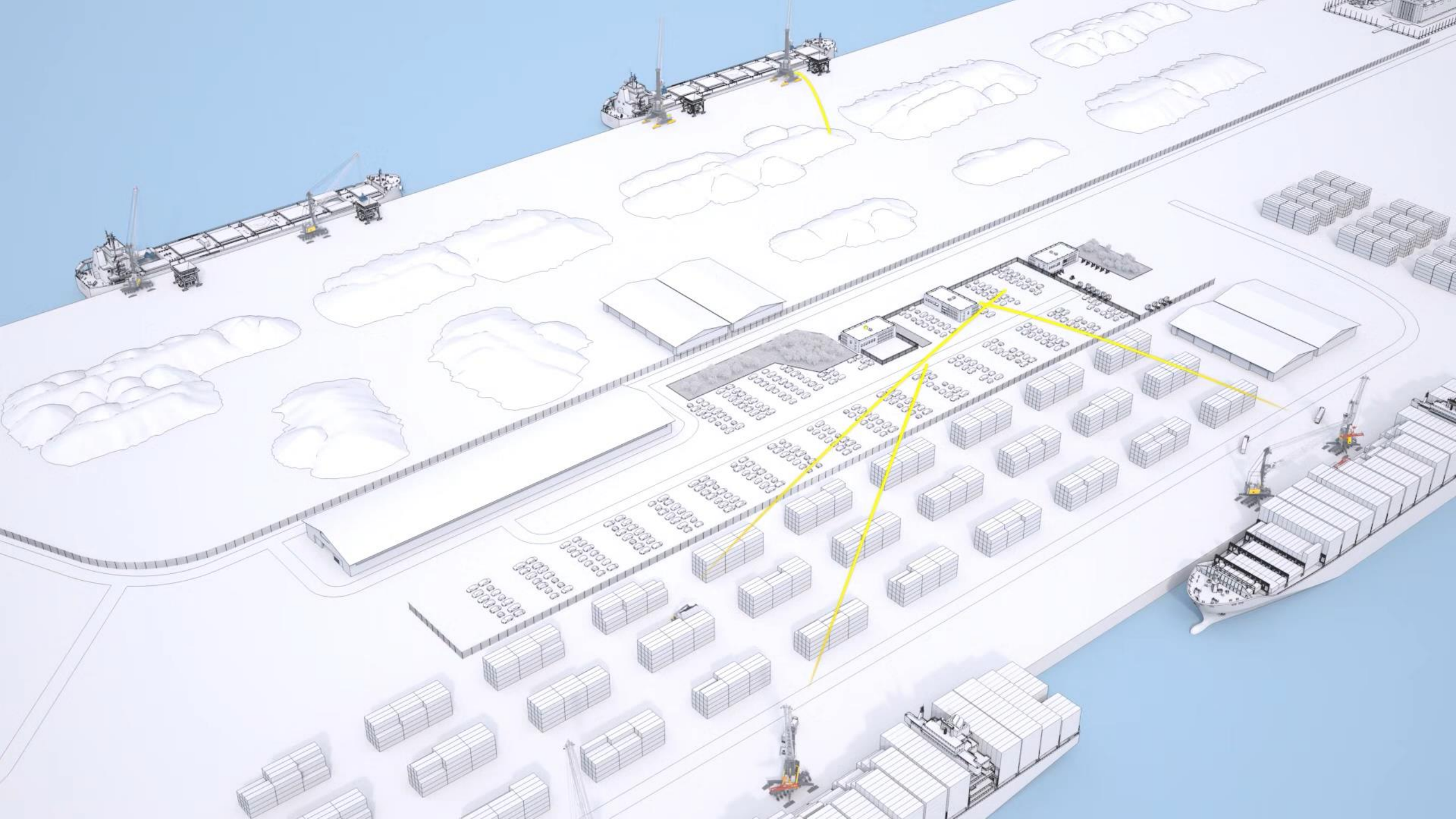
Product	Maintenance	Operation
LiDAT® smartApp	X	X
LiMain: Liebherr intelligent Maintenance	X	
XpertAssist – Real-time remote support	X	X
Remote Operator Station (ROS)		X

LiDAT[®] smartApp

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LiMain

**Liebherr Intelligent
Maintenance**

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Liebherr Intelligent Maintenance



Predictive
Maintenance



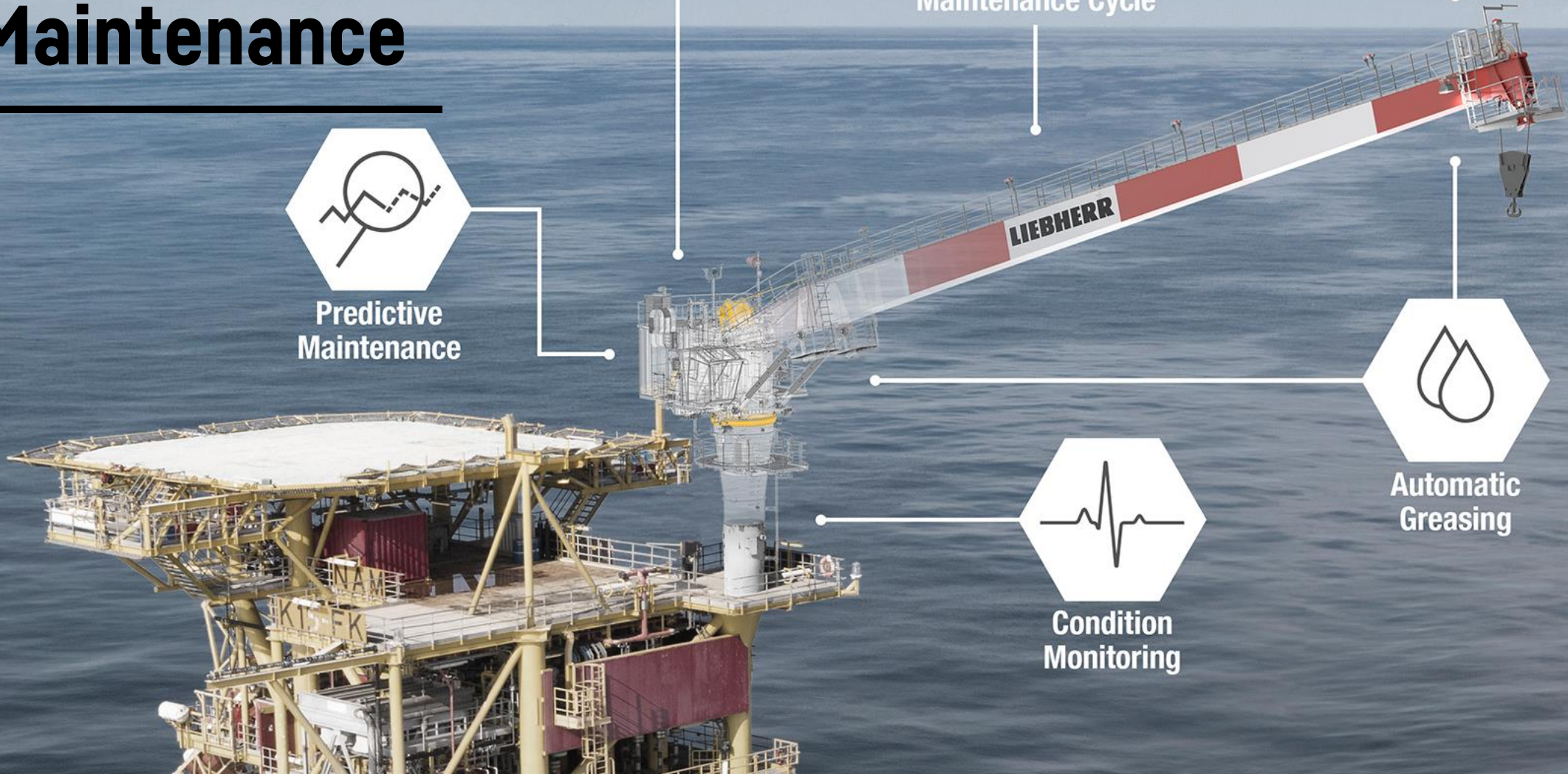
Remote
Maintenance Cycle



Automatic
Greasing



Condition
Monitoring



XpertAssist

Real-time remote support

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Technology vision & automation in ports

XpertAssist – real-time remote support

- Reduced repair times by 50%
- Immediate qualified fault analysis by contacting your service partner via an app
- Offers advanced technical assistance via an audio-video connection
- Real-time support that can be used for regular maintenance or general enquiries





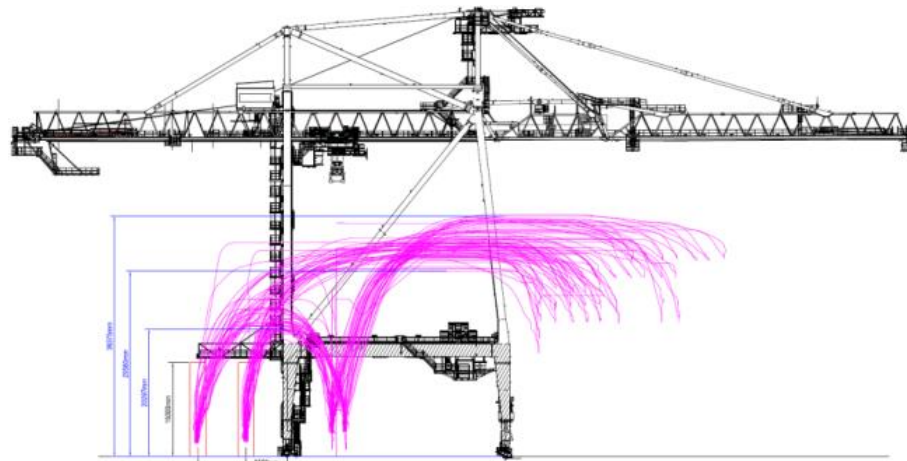
Xpert Assist in use for the remote assembly of a Liebherr mobile harbor crane

ROS

Remote Operation Station

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Liebherr Maritime Cranes



Liebherr Automation Systems optimises hoisting cycles

- Full / Semi automation
- Optimum hoist & trolley path
- Full remote operation
- Exceptional handling
- STS / RTG / RMG

Technology vision & automation in ports

We understand Africa

- Strategically located Liebherr Service Stations
- Solutions adapted to the African market
- Strong presence in West Africa through Lagos hub
- Continuous growth in West Africa



Thank you.



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