

What's affecting the crane business?

## LIEBHERR

5 October 2023



## Agenda

# Challenges



**VUCA** 

# **Trends**



Market

Technological Advancement

# **Opportunities**



Sustainability

Automation and Artificial Intelligence



# Challenges

#### Challenges

#### **VUCA**

Uncertainty Volatility **GeoPolitical Conflicts** Safety **VUCA Ambiguity** Availability and Skill Set of Complexity SupplyChain disruption workforce

# Trends

### Market

#### **Urbanisation**



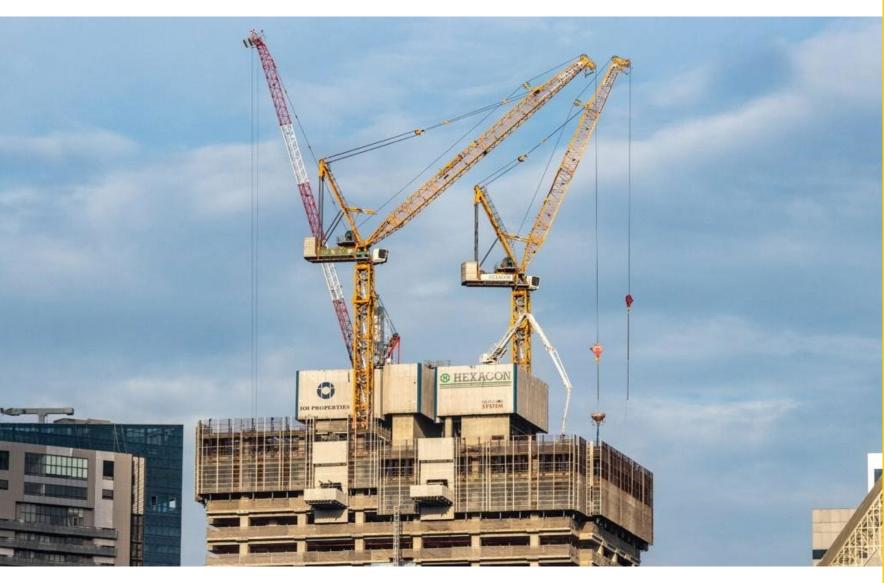
#### Trends

### Market

#### **Planning**



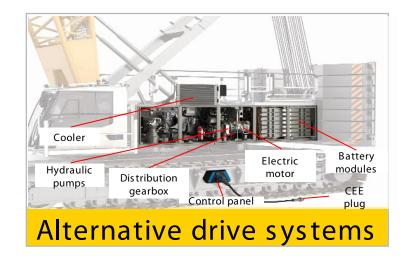
## Market



**Heavy lifting** 

#### **Trends**

## **Technological Advancement**







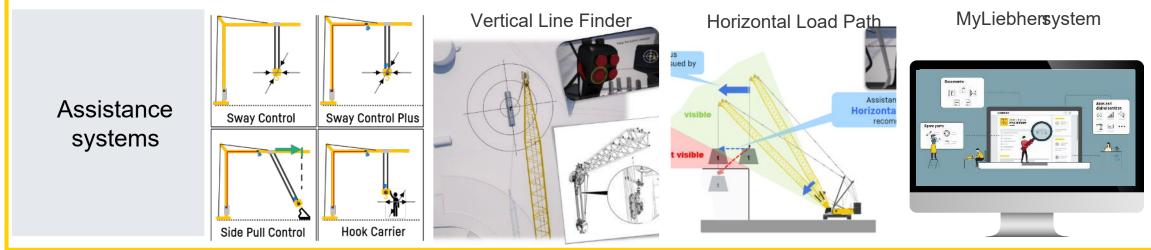
#### **Liebherr Solutions**



Liebherr Automation **Systems** 

Automation and remote control





Trends: Electrification - Unplugged

#### **Benefits**



Proventechnology

02

Same performance as conventional

03

Easyto charge

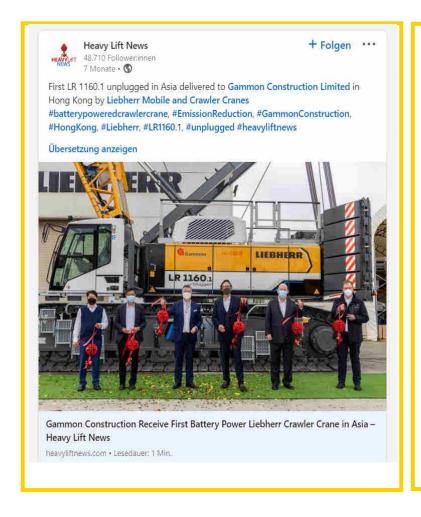
04

Emission free-also with regard to noise



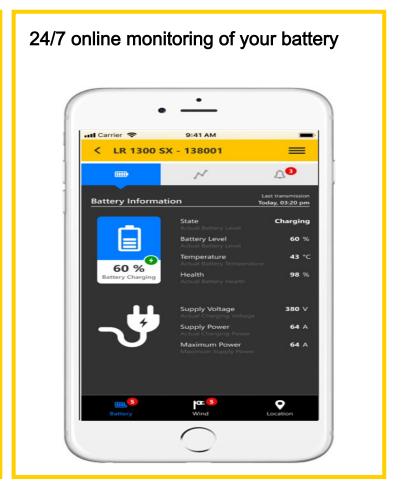
#### Trends: Electrification - Unplugged

### Market proven technology



SBTi acquired Hong Kong's first battery-powered crawler crane, marking another milestone dhe company's journey to achieving its emission reduction targets in line with climate science and the Science **Based Target initiative** 







Trends: Safety

**Ground Pressure Indication** 

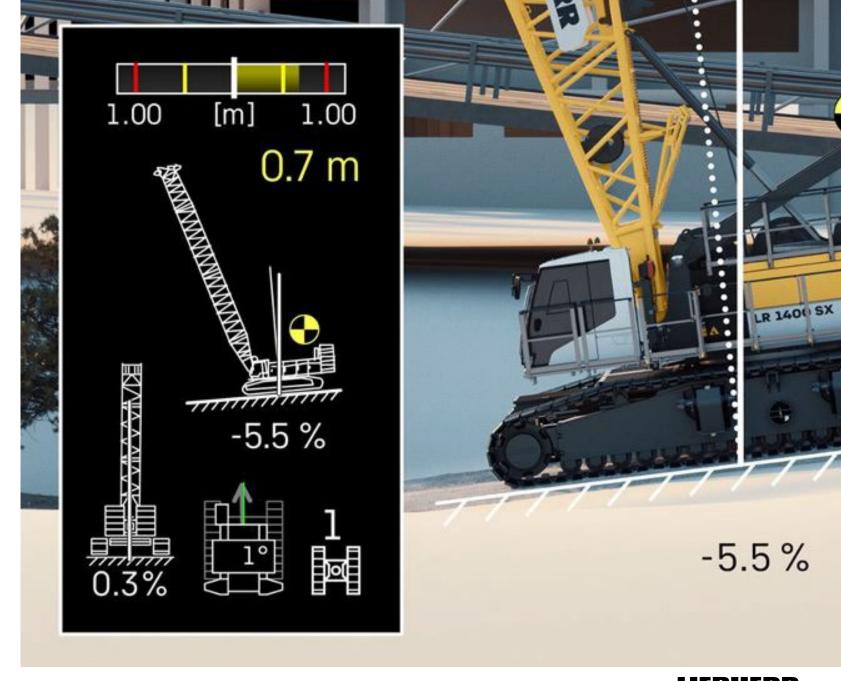
—A maximum permissible ground pressure can be set, the utilization of the set permissible ground pressure is displayed and the crane operator is warned accordingly if the set permissible ground pressure is approached or exceeded.



Trends: Safety

#### **Gradient Travel Aid**

—Safely on the move on uneven terrain – the machine's control system automatically calculates its centre of gravity.



# Opportunities

Opportunities

# Sustainability





Wind energy

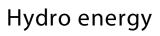






Solar energy









Geothermal energy





