

# ***LiDAT<sup>®</sup> smartApp*** ***Smart up your performance***



***18th ASEAN Ports & Shipping***  
***Jakarta – Indonesia***  
***2020***

# Using Analytic Tools to Make Sound Business Decisions

*Trends in cargo handling and automation solutions for ports and terminals.*

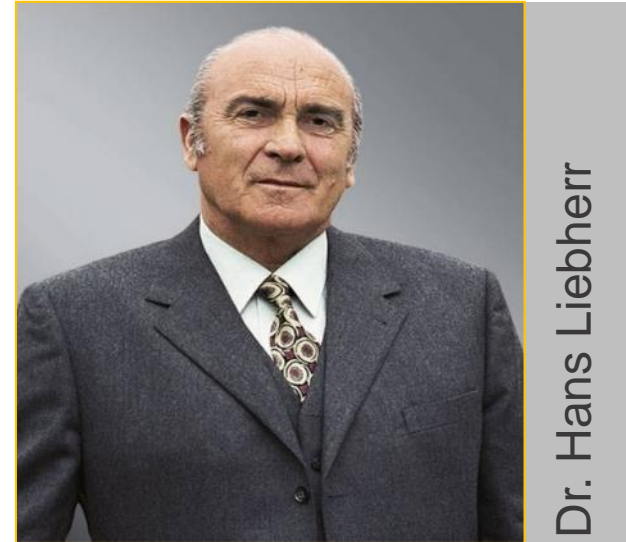
## Presentation outline

- Company Overview
- Challenges in Age of Digitalisation
- Introduction of LIDAT smartApp
  - Types of Packages
  - Features & Applications
  - Video Presentation



# Liebherr – a Family Business

- Company founded in 1949 by Dr.-Ing. E.h. Hans Liebherr
- The Liebherr Group today:
  - over 146 companies worldwide
  - almost 46,169 employees
  - Approx 600 experienced, multi-skilled and factory-trained service engineers
  - More than 50 service centre around the globe
  - approximately € 11.5 billion turnover (2019)
- Consistent annual investments of up to 10% of turnover in production sites, sales and service organisation – to serve our customers better
- Decentralized structure with straightforward, autonomous corporate units – divisional structure
- Holding company:  
Liebherr-International AG, Bulle/Switzerland



Dr. Hans Liebherr



The Liebherr Group

# Multifaceted product range



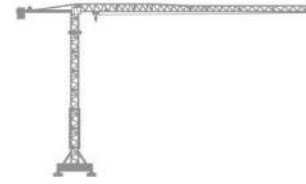
Earthmoving



Mining



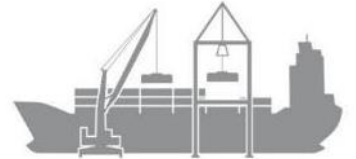
Mobile Cranes



Tower Cranes



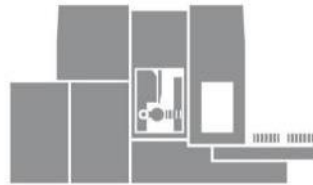
Concrete Technology



Maritime Cranes



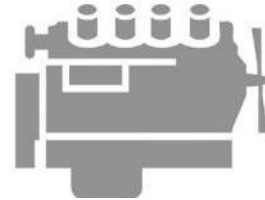
Aerospace and  
Transportation Systems



Machine Tools and  
Automation Systems



Domestic  
Appliances



Components



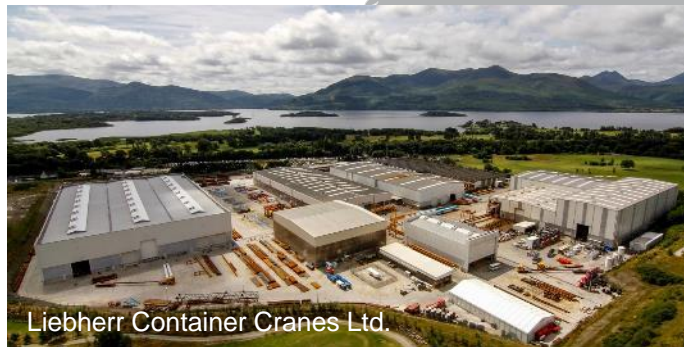
Hotels

**INTEGRATION OF EXPERTISE**  
**Long-Term Parts and Service Support**

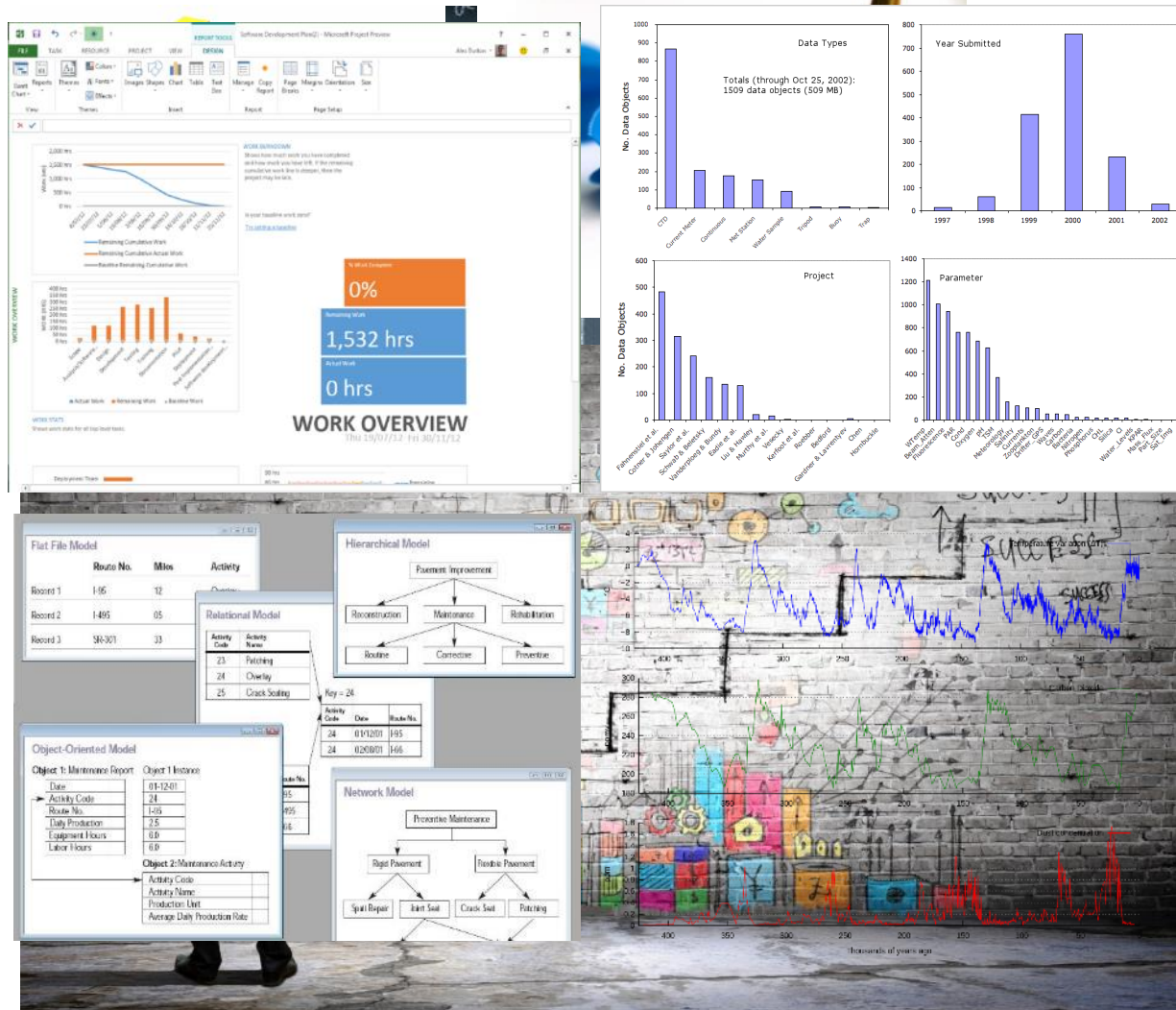
**LIEBHERR**



# Maritime Production Network



# Age of Digitalisation - Abundance of Available Data



- **Information level - Abundance of Data**
  - Numbers are everywhere in our lives, e.g. system reports, past statistics, live machine data, etc
  - LACK of right tools to convert these statistics into useful information which we can take action upon
- **Hidden Potential - Improving Work Processes**
  - Properly represented data are more than just numbers
  - Machine trends – Improve MTBF, increase servicing interval, enable predictive maintenance, etc
- **Objective - Leveraging on Right Information**
  - Getting the right information at the right time
  - Using these TARGETED information to increase efficiency & better profitability

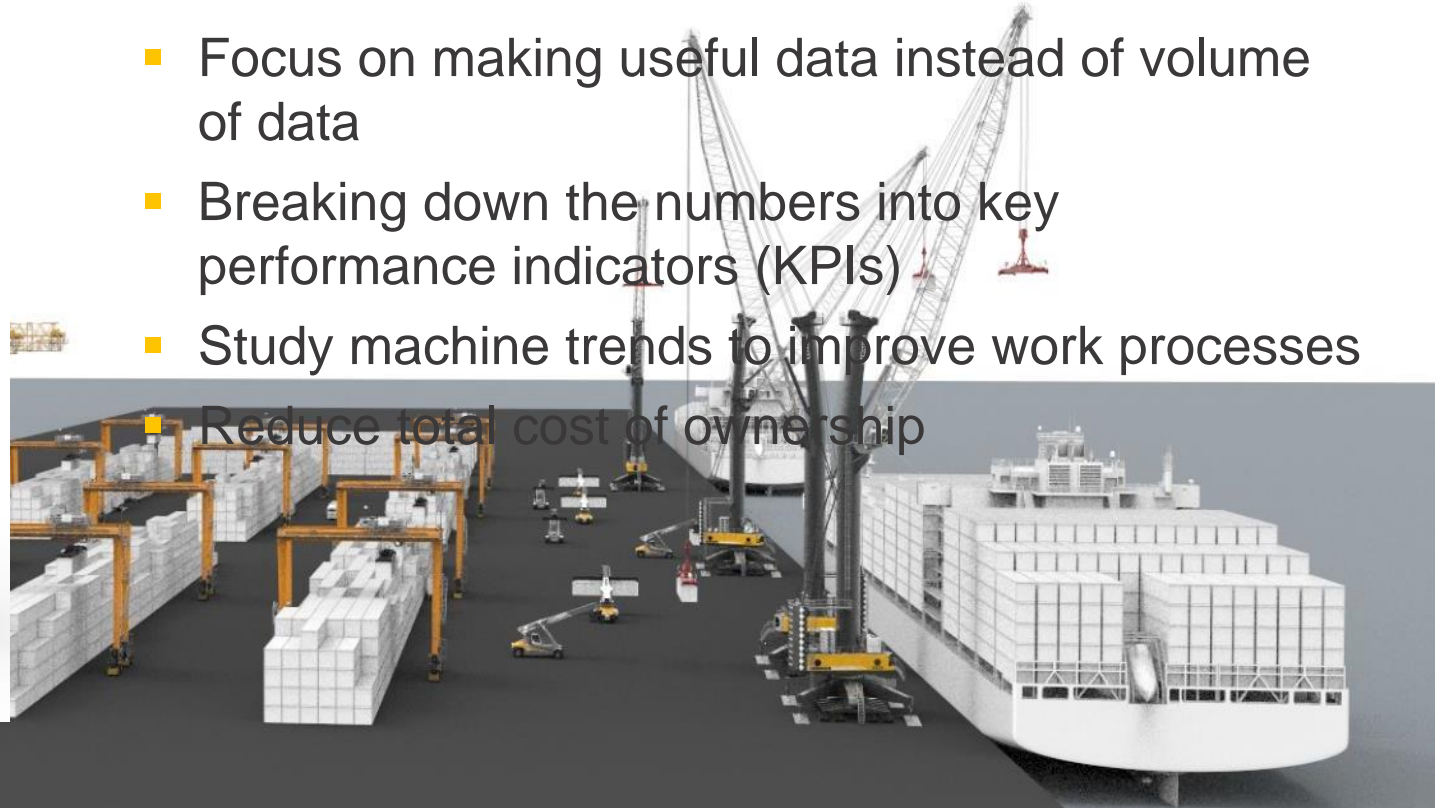




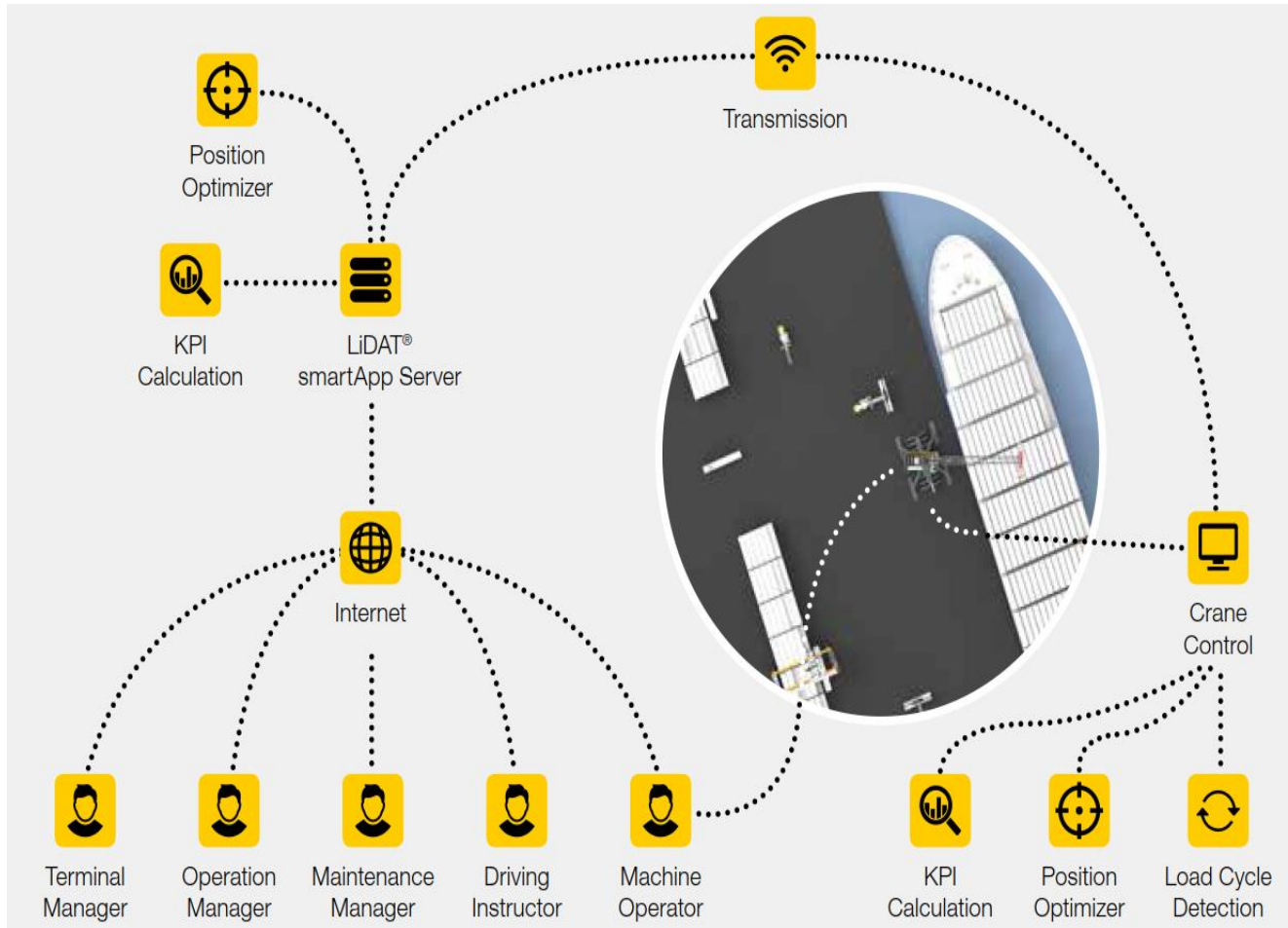
# Converting Raw Numbers into Machine Knowledge



- **Big Data Analysis**
- Value added data – Available on demand and real time data for customers
- Focus on making useful data instead of volume of data
- Breaking down the numbers into key performance indicators (KPIs)
- Study machine trends to improve work processes
- Reduce total cost of ownership



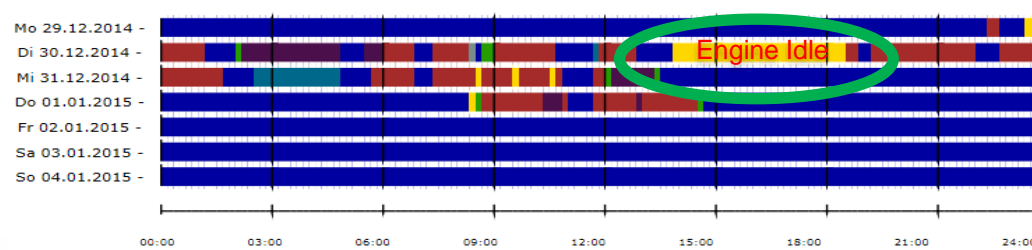
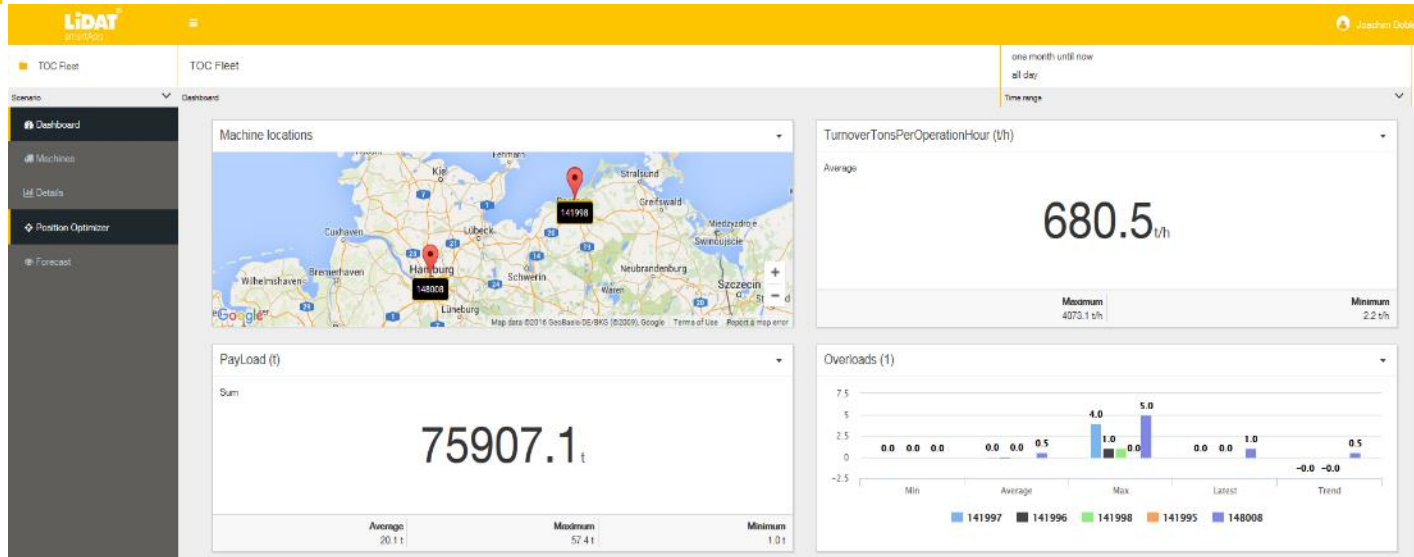
# Solution – LiDAT smartApp



- Relevant data transmitted to the LiDAT® smartApp server to support operational, maintenance and optimisation needs
- Authorised users can access and download the processed data via LiDAT® SmartApp on PC and mobile device – Graphical display
- Users accesses customised performance report, fuel consumption, turnover, crane utilisation, machine alerts, service status, etc.
- Users make immediate sound decisions, e.g. defining rental rates, crane positioning, unloading paths, operators' deployment, refuelling window, fleet management, maintenance planning, etc.
- Teleservice and remote support



# Customised Real-Time Status Report



## Status reports

- Customise your dashboard (KPIs)
- Monitor your cargo handling process in real time, e.g. turnover, engine fuel consumption, overloads, machine location, type of operations, etc



Master data		maintenance details	
Ownership type	Owner	<b>Next due maintenance</b>	
Owner	LWN	Name	machine maintenance 500 operating hours r
Manufacturer	Liebherr	Date	22/06/2015
Year of construction	2015	<small>If necessary, additional tasks and inspections, which are not indicated in the confines of the maintenance schedule, must be performed. The relevant maintenance tasks on the machine are documented in the maintenance schedules and instructions in the operating manual.</small>	
Series/work number	141	<b>Actions</b>	
Class	Mobile harbour crane	New construction site deployment...	
Series	LHM	Change alias...	
Type	LHM 280	Edit master data...	
Specific type	280.3	Group...	
PME1/AC500S	<input checked="" type="checkbox"/>	Comments...	
Control software ID no.	10518508	Maintenance...	
Software version	083	Configure transfer...	
LiTU software ID no.	93012175	Assign modem...	
LiTU software version	028	Edit restrictions...	
		Sell...	
		Request data transfer...	
		<b>Reports</b>	
<b>Key data</b>		Customer maintenance planner	
Based on transfer from	06/03/2015 07:55:04	Deployment schedule	
Time zone	GMT+01:00	Geo-Track	
Operating mode:	Normal lift with spreader	Machine details	
Average daily OH	1 h, 35 min	Machine list	
Fuel level	18.0 %	Machine logbook	
Operating hours	333 h, 52 min	Machine use	
		Safety report	
		Service maintenance planner	

# Customised Intergrated Planning

**LiDAT smartApp** for demonstration purpose only

**Machines**

- LRS 545 - 999008**: Latest Timestamp: 2 min ago, State: Working, Operating Hours: 5,750 h, Fuel Level: [Progress Bar], AdBlue Level: [Progress Bar], Licenses: [Icons]
- CBG 350 - 999007**: Latest Timestamp: 3 min ago, State: Waiting, Operating Hours: 14,203 h, Fuel Level: [Progress Bar], Licenses: [Icons]
- CBG 350 - 999006**: Latest Timestamp: 3 min ago, State: Working, Operating Hours: 14,600 h, Fuel Level: [Progress Bar], Licenses: [Icons]
- LHM 550 - 999005**: Latest Timestamp: 3 min ago, State: Working, Operating Hours: 13,646 h, Fuel Level: [Progress Bar], AdBlue Level: [Progress Bar], Licenses: [Icons]
- LHM 600 - 999004**: Latest Timestamp: a minute ago, State: Working, Operating Hours: 12,459 h, Fuel Level: [Progress Bar], AdBlue Level: [Progress Bar], Licenses: [Icons]
- LHM 550 - 999003**: Latest Timestamp: 2 min ago, State: Working, Operating Hours: 16,172 h, Fuel Level: [Progress Bar], AdBlue Level: [Progress Bar], Licenses: [Icons]

## Equipment & Operators' Deployment Planning (Across different equipment type)

**Operational planning** 01/01/2015 - 15/01/2015 Liebherr-Werk Nenzing GmbH (LWN)

### Overview of deployments (Organization time)

		January 2015																														
Machine	Capacity utilisation	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1	0%	[Grey cells]																														
2	100%	[Green cells]																														

Site
  Rental
  Maintenance
  There are no planned deployments.

### Deployment details (Machine time)

Machine	From	To	Type of use	Location	Oh	Consumption
2	26/05/2014 06:46:00	26/05/2017 23:59:59	Rental	LWN	276 h	3302 l

### Machine details

Machine	Series	Type	Serial no.	Capacity utilisation	Position	Address	Groups
1	LiftCrane	LR 1160		0%			LWN
2	LiftCrane	LR 1100		100%			LWN



***Please visit us at***

**LIEBHERR**

***booth No. 14***

**LIEBHERR**