Shaping the industry through intelligent cargo handling

Antti Kaunonen, President, Kalmar
Shaping the industry through intelligent cargo handling

- We have continued to improve our profitability
- Services provide the biggest medium term growth opportunity
- Industry mega trends support long term growth in automation and software
- We have a unique position to leverage our references to grow automation and software
Kalmar in brief and results after CMD 2015
We deliver industry leading solutions
Kalmar is the industry leader in terminal automation and eco-efficient cargo handling.

<table>
<thead>
<tr>
<th></th>
<th>MEUR</th>
<th>LTM**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orders received</td>
<td>1,662</td>
<td></td>
</tr>
<tr>
<td>Order book</td>
<td>926</td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>1,680</td>
<td></td>
</tr>
<tr>
<td>Operating profit*</td>
<td>138.9</td>
<td></td>
</tr>
<tr>
<td>Operating profit margin*</td>
<td>8.3%</td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>5,788</td>
<td></td>
</tr>
</tbody>
</table>

* Excluding restructuring costs
** LTM = Last 12 months (Q3/16 – Q2/17)

**Geographical split of Sales**
- AMER: 36%
- EMEA: 42%
- APAC: 22%

**Sales mix last 12 months**
- Services: 26%
- Software: 10%
- Equipment and Projects: 64%
Our profitability improvement has continued

- Improved mega-project delivery capabilities
- Software growth
- Zero emission solutions

- Market leader in China for Reachstackers and Empty Container Handlers
- Absolute € based service growth

*) LTM – Last 12 months (Q3/16 – Q2/17)
**) Excluding restructuring costs
Our profit improvement potential 2015-2018

### Automation
- Project delivery capability development
- Expand Rainbow Cargotec Industries (China) joint venture offering
- Further development of integrated port automation solutions

### Software
- Expand software business

### Mobile equipment
- Continuous improvements in design-to-cost and sourcing
- Strengthen distribution network

### Services
- Excel in spare parts
- Excel in Services

**Total 60-100 EUR million improvement potential**

- 60-100 EUR million improvement potential
- +20-30 EUR million
- +10-20 EUR million
- +20-30 EUR million
- +10-20 EUR million
**Services provide our biggest medium term growth opportunity**

<table>
<thead>
<tr>
<th>Market share</th>
<th>Equipment &amp; Projects</th>
<th>Software</th>
<th>Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>20-30%</td>
<td>20-30%</td>
<td>3-5%</td>
</tr>
<tr>
<td>Market size</td>
<td>6B€</td>
<td>0.5-1B€</td>
<td>8B€</td>
</tr>
</tbody>
</table>

Cargotec CMD 2017
Future focus on maintenance contracts

Customer segments:

Ports and terminals, distribution and industrial handling

<table>
<thead>
<tr>
<th>MEUR</th>
<th>LTM*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service orders received</td>
<td>425</td>
</tr>
<tr>
<td>Service sales</td>
<td>439</td>
</tr>
</tbody>
</table>

Service sales by business unit:
- Used equipment: 9%
- Maintenance contracts: 35%
- Crane upgrades: 10%
- Spare parts: 46%

Service sales by geographical area:
- Americas: 25%
- APAC: 19%
- EMEA: 56%

*) LTM = Last 12 months (Q3/16 – Q2/17)
We have the industry’s widest global sales and service network to capture growth

1,500 Kalmar service staff in 100+ countries*

*) Not including dealers and agents
The current replacement market size for key terminal equipment is EUR 1 billion annually and the market is expected to double in the next decade.

The replacement market will grow in coming years, as the container terminal capacity has expanded significantly during the last two decades.

Average lifetime of type of equipment:
- STS - 25 yrs
- RTG - 15 yrs
- SC - 8-10 yrs
- RS/ECH/TT – 8 yrs

Source: Drewry reports: Global Container Terminal Operators 2001-2016 Note: 1995-2000 capacity is estimation based on the assumption that the utilisation rate has been between 70-72% in that period. 2016-2020 forecast based on Drewry’s Global container terminal operators report, published in August 2016.
Industry mega trends support long term growth in automation and software

**Mega vessels**
Efficiency demands increase as marine transport continues to grow. Larger ships require capacity improvements from port operators.

**Sustainability**
Strict emission requirements & growing concern for the environment increase the demand for more intelligent machines with smaller environmental impact.

**Industry consolidation**
New alliances between shipping lines are impacting container traffic flows and setting new efficiency standards for port operators.

**Digitalisation & automation**
Digital and automated solutions provide new possibilities for port operators to improve efficiency, safety and sustainability.
Business case for automation has not changed since CMD 2015

Cost saving example in a typical automated terminal

Indexed P&L manual terminal

<table>
<thead>
<tr>
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<th>When converted into an automated operation:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
<tr>
<td>Labour Cost</td>
<td><strong>40</strong></td>
<td>60% less Labour Costs 16</td>
</tr>
<tr>
<td>Maintenance</td>
<td><strong>8</strong></td>
<td>20% less Maintenance 6.5</td>
</tr>
<tr>
<td>Power &amp; Fuel</td>
<td><strong>4</strong></td>
<td>25% less Power &amp; Fuel 3</td>
</tr>
<tr>
<td>IT</td>
<td><strong>2</strong></td>
<td>50% higher IT 3</td>
</tr>
<tr>
<td>Depreciation</td>
<td><strong>10</strong></td>
<td>30% higher Depreciation 13</td>
</tr>
<tr>
<td>Other Costs (land, overhead)</td>
<td><strong>18</strong></td>
<td>Assuming same overheads 18</td>
</tr>
<tr>
<td>Total costs</td>
<td><strong>82</strong></td>
<td>27% less costs 59.5</td>
</tr>
<tr>
<td><strong>Profit</strong></td>
<td><strong>18</strong></td>
<td>125% profit increase 40.5</td>
</tr>
</tbody>
</table>

Additionally, improved safety reduces number of lost working hours, equipment damage costs and insurance premiums.

*) Typical manual operation in Europe
Number of automated/semi-automated prospects has even grown since CMD 2015 but decisions to go ahead have been postponed.

- **Greenfield** 50%
- **Brownfield** 10%
- **Extensions** 30%
- **Other** 10%

Main reasons that have postponed the development:
- Waiting for confirmed performance of over 30 moves per hour
- Lower degree of container traffic growth
- Waiting for shipping alliances to be fully operational

Source: Kalmar SalesForce

Automated RTG projects and prospects excluded,
Cargotec CMD 2017
12/9/2017
14
Software solutions reduce the impact of cyclicality
Navis Terminal and Carrier Solutions aim to reduce inefficiency and waste in the global supply chain.

Planning & Execution: plan and execute all moves across terminal. Increases throughput and lowers cost.

Automate & improve truck turn times.

Optimise vessel operational performance and environmental compliance.

Optimise stowage planning.

Analytics for better operational decision making.

Capture all billable events for accurate and timely billing.

Optimise vessel load and discharge across cranes.

Optimise rail load and discharge processes.

Optimise container yard moves, save cost and reduce moves.

Optimise vehicle routing and costs.

Ensure seaworthy loading of vessels.

€17 BILLION of waste and inefficiency.

Source: McKinsey
Navis is well positioned for further growth in the end-to-end value chain

**Navis Tomorrow**
End-to-end supply chain network

**Navis Today**

**TERMINAL & SHIPPING OPERATIONS PROCESS FLOW**

**INCOMING CONTAINERS**
Container arrives by road/rail transportation and is registered at the terminal

**TERMINAL STORAGE**
Container is sorted and stacked at the yard

**LOADING**
Container is unstacked from yard and stowed on ship

**OCEAN TRANSPORT**
Vessel pilots out of the port, sails across ocean, and pilots into destination port

**UNLOADING**
Unloaded from ship onto quay crane. Containers move into trans-shipment or import/export storage

**TERMINAL STORAGE**
Containers sorted and stacked in the yard

**OUTGOING CONTAINERS**
Containers loaded onto rail/road transport
VICT: Fully automated turnkey greenfield terminal in Melbourne

- 11 Kalmar AutoShuttles
- 20 Kalmar Automated Stacking Cranes
- Kalmar Automated Truck Handling
- Fully integrated Kalmar TLS with Navis N4 TOS
- System integration services

"Through Kalmar, we will be able to leverage their knowledge and experience from similar automation projects throughout the world and get an integrated system comprising the equipment TLS from Kalmar and the terminal TOS from Navis. We believe that this approach to use a key partner for equipment and software services will help us optimise the operational performance for the future."

Christian R. Gonzalez
Head of the Asia-Pacific region
ICTSI
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