The global robotics market – where are we headed?

Let’s talk *by automatica*
15 October 2020

#WorldRobotics2020
2019: Global economic downturn and trade tensions leave their marks

Robot stock
2019: 2.7 million units, +12%
• highest number ever recorded
• CAGR since 2014: +13%

New robots
2019: 373,000 units, -12%
• third highest number ever recorded
• CAGR since 2014: +11%
A decade of growth

Annual installations of industrial robots - World

1,000 units

Source: World Robotics 2020
High sales volumes in all major markets

Annual installations of industrial robots
('000 of units)

Source: World Robotics 2020
China remains the main end user of industrial robots
The two major customers struggled in 2019

Annual installations of industrial robots by customer industry - World

<table>
<thead>
<tr>
<th>Customer Industry</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive</td>
<td>126</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>Electrical/electronics</td>
<td>105</td>
<td>122</td>
<td></td>
</tr>
<tr>
<td>Metal and machinery</td>
<td>44</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Plastic and chemical products</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>Food</td>
<td>9</td>
<td>12</td>
<td>21</td>
</tr>
<tr>
<td>All others</td>
<td>30</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>Unspecified</td>
<td>56</td>
<td>76</td>
<td>81</td>
</tr>
</tbody>
</table>

Source: World Robotics 2020
Collaborative robots: sales volume growing

Collaborative and traditional industrial robots

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Sales (000 units)</th>
<th>Collaborative Robots (000 units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>355</td>
<td>18</td>
</tr>
<tr>
<td>2018*</td>
<td>406</td>
<td>16</td>
</tr>
<tr>
<td>2017</td>
<td>389</td>
<td>11</td>
</tr>
</tbody>
</table>

*revised

Source: International Federation of Robotics
More robots deployed than ever

Operational stock of industrial robots - World
1,000 units

Source: World Robotics 2020
Singapore and Rep. of Korea with highest robot density

Robot density in the manufacturing industry 2019

Average Europe: 114
Average America: 103
Average Asia: 118
Average World: 113

Source: International Federation of Robotics
Thank you!

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