

# ***New Technologies for Logistics***

***Applied uses cases of Artificial Intelligence (AI)***

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# *Overview*

- › Vanderlande and New Technologies
- › AI Landscape
- › Applications

## About Vanderlande: Company profile

Established  
in 1949



  
**>7,500**  
employees

**€1.8 billion**  
revenue



  
Airports

**>600** airports  
12 of the world's top 20



- Barcelona Airport
- Orlando International Airport
- London Heathrow Airport
- Hong Kong International Airport
- Amsterdam Airport Schiphol
- Istanbul Airport

  
Warehousing



**Many** of the largest  
global e-commerce  
players and retailers



- Bonpreu
- Inditex
- Amazon
- Lidl (part of Schwarz Gruppe)
- Albert Heijn (part of Ahold Delhaize)
- Zalando
- Walmart



Global market leader



Innovative  
systems



Intelligent  
software



Life-cycle  
services



Parcel

**>52 million**  
parcels sorted  
every day



**5** largest parcel  
and postal  
companies




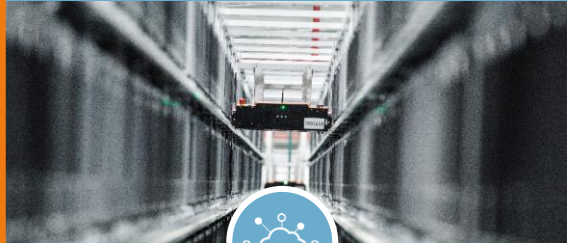







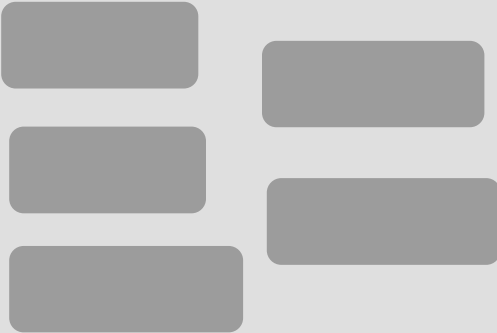
- Seur
- Correos
- UPS
- DHL
- FedEx
- DPD

**TOYOTA**

Since 2017, part of MATERIAL HANDLING

MOVING YOUR BUSINESS FORWARD

# Vanderlande Technology

	ROBOTIC MANIPULATION	AUTONOMOUS VEHICLES	ARTIFICIAL INTELLIGENCE	SMART & CONNECTED SYSTEMS
				
				
<b>Technology Capabilities</b>				
<b>Trends</b>	<ul style="list-style-type: none"> <li>SENSORS</li> <li>GRIPPERS</li> <li>REMOTE MANIPULATION</li> <li>MOBILE MANIPULATION</li> </ul>	<ul style="list-style-type: none"> <li>AUTONOMOUS MOBILE ROBOT</li> <li>LAST MILE BOTS</li> <li>SWARM ROBOTICS</li> <li>DECENTRALIZED DECISION MAKING</li> <li>GUIDED VEHICLES</li> <li>UAVS/DRONES</li> </ul>	<ul style="list-style-type: none"> <li>NARROW AI</li> <li>ALGORITHMS</li> <li>DYNAMIC DECISION MAKING</li> <li>SELF-LEARNING ALGORITHMS</li> </ul>	<ul style="list-style-type: none"> <li>DIGITAL TWINS</li> <li>IIoT</li> <li>BIG DATA ANALYTICS</li> <li>DECENTRALIZED DECISION MAKING</li> <li>DATA LAKES</li> <li>NLA</li> </ul>

# What is AI?

Machine Learning is Learning like humans do

Image



Label Car Car Car

Training the Machine  
Learning model



Using the Machine  
Learning model

New Image



✓ Car

Traditional Programs

```
if email contains Viagra  
    then mark is-spam;  
if email contains ..  
if email contains..
```

Machine Learning Programs

```
try to classify some emails;  
change self to reduce errors;  
repeat;
```

# AI origins

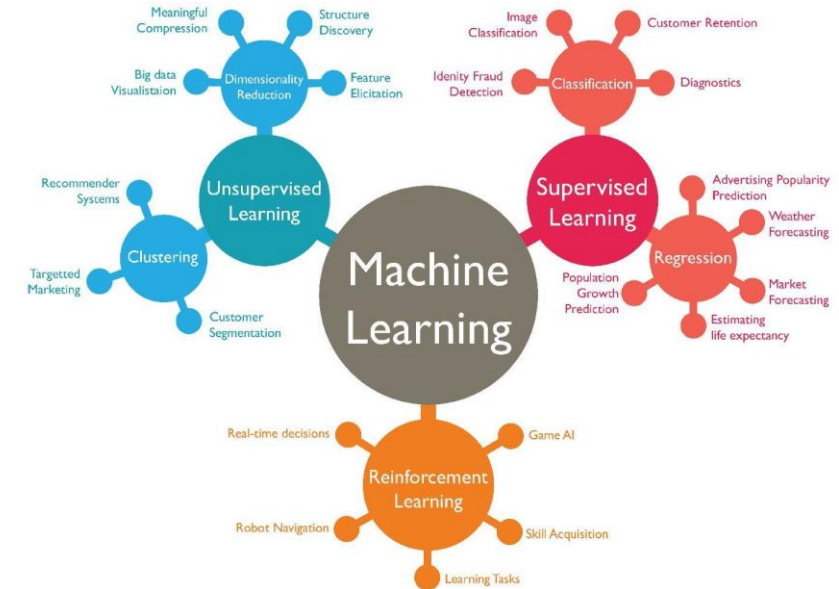
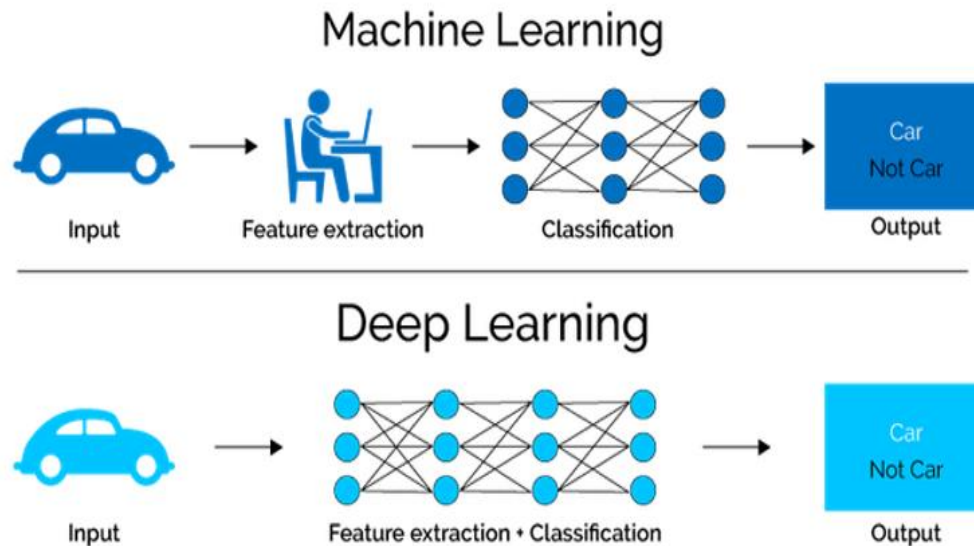
1956, Dartmouth Conference



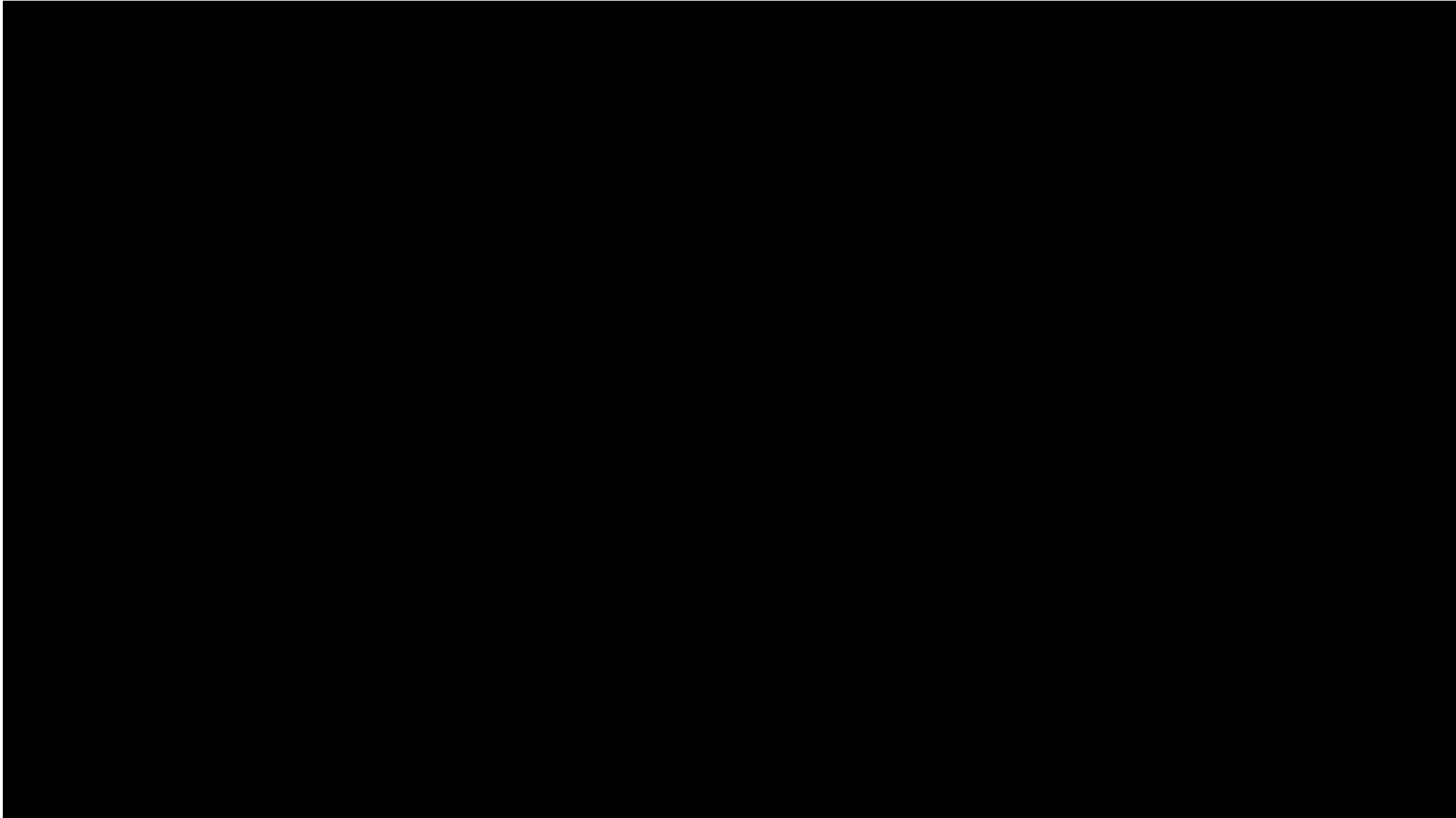
Deep Blue 1997



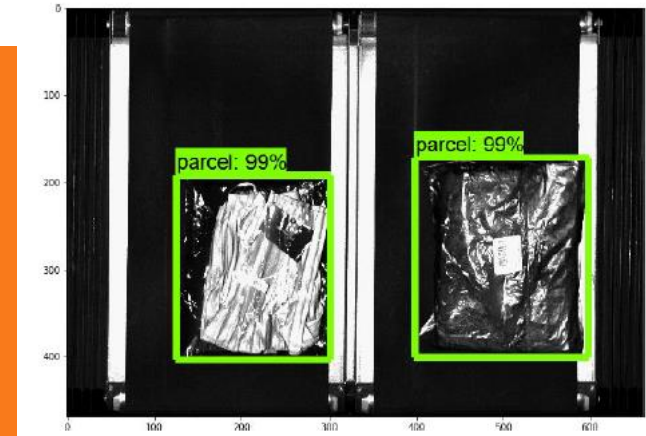
# AI Lanscape



# AI to Optimize Ergonomics



Low Product  
Detection





Create Images and Ground Truth Synthetically(Digital)

***VANDERLANDE***

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