

# Autonomous Mobile Robots Support a Lean Approach to Business Operations at Honeywell



**Honeywell**

**MiR**  
MOBILE INDUSTRIAL ROBOTS

# Agenda

- Introduction to Honeywell and MiR
- Honeywell's approach to automation and use of mobile robots
- The implementation of mobile robots
- Future trends





## Stuart Harris

Advanced Manufacturing and Engineering  
Leader at Honeywell Analytics in Poole



## René Tristan Lydixsen, PhD

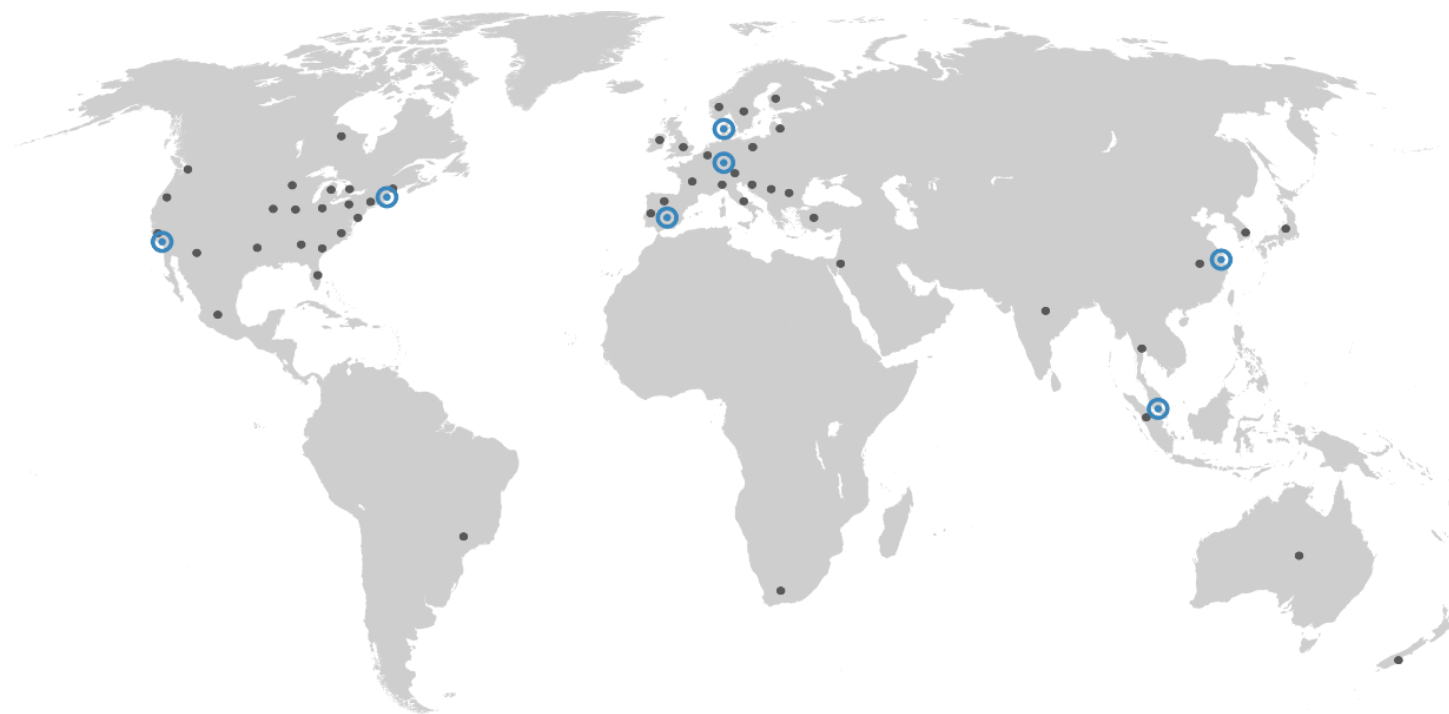
Chief Commercial Officer at Mobile Industrial  
Robots



# Mobile Industrial Robots



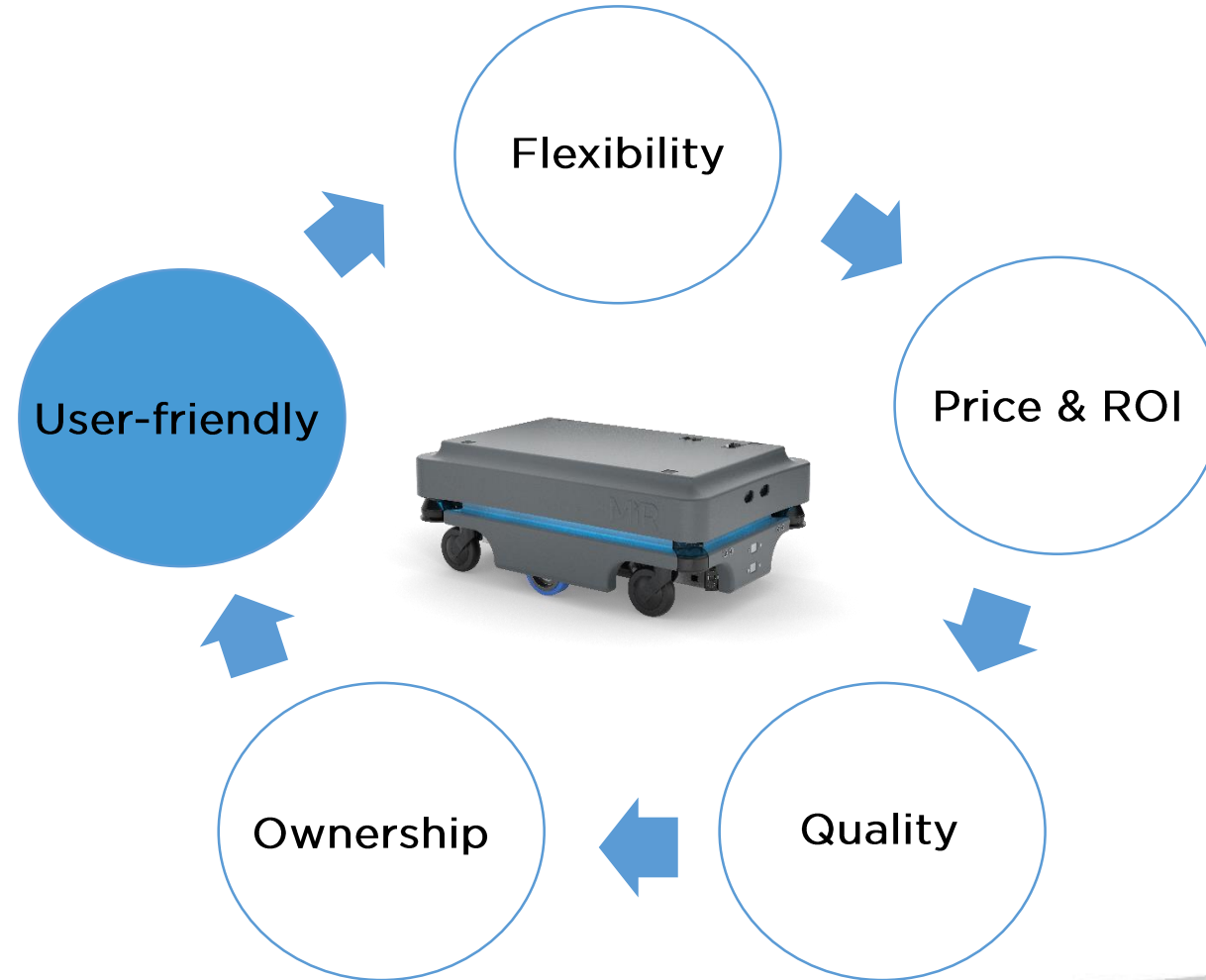
- Leading manufacturer of collaborative mobile robots
- Founded in 2013
- Acquired by Teradyne April 2018
- 88 employees – 37 recruited in 2018
- +120 distributors in 40 countries



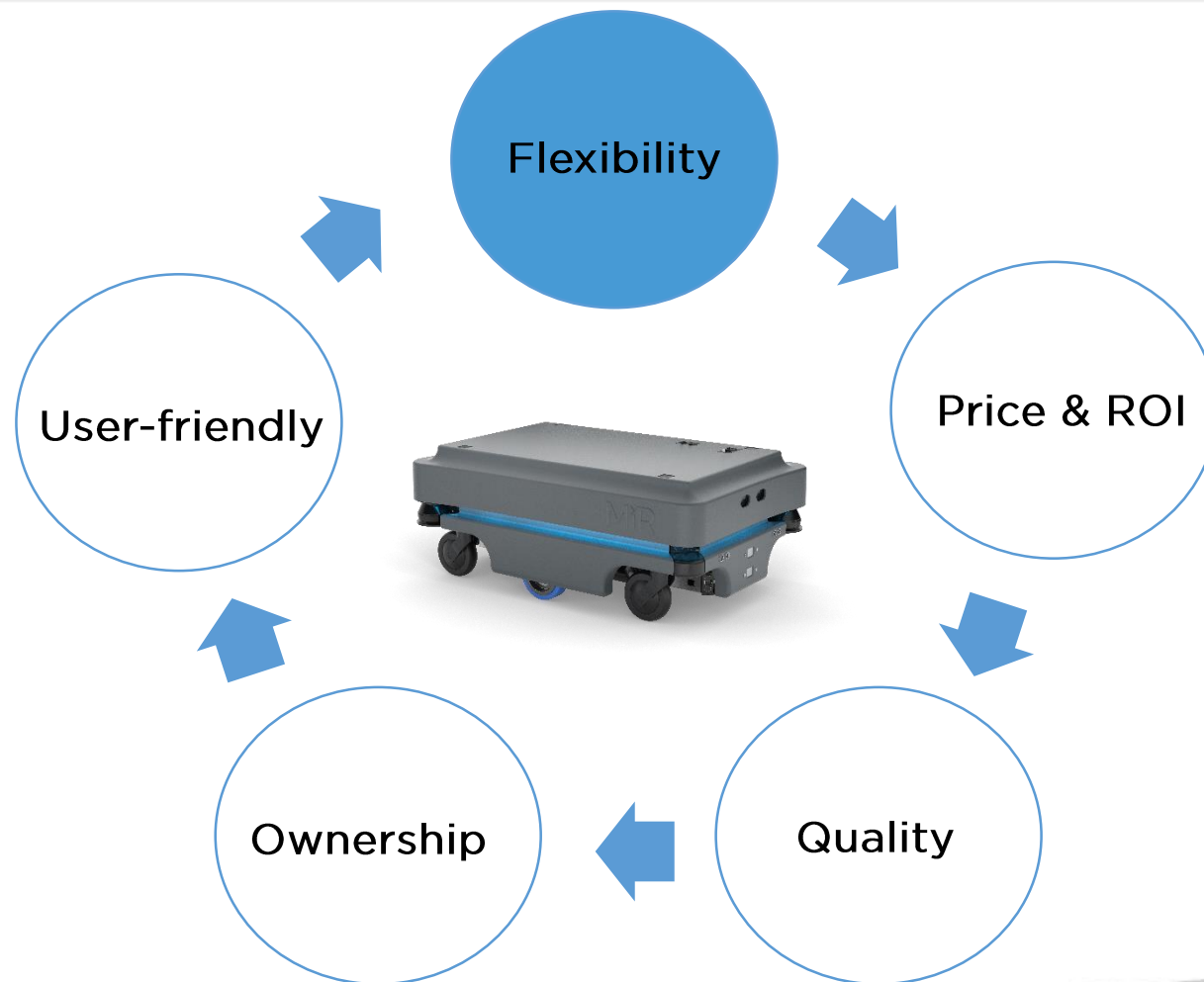


# Thought leadership on collaborative robots

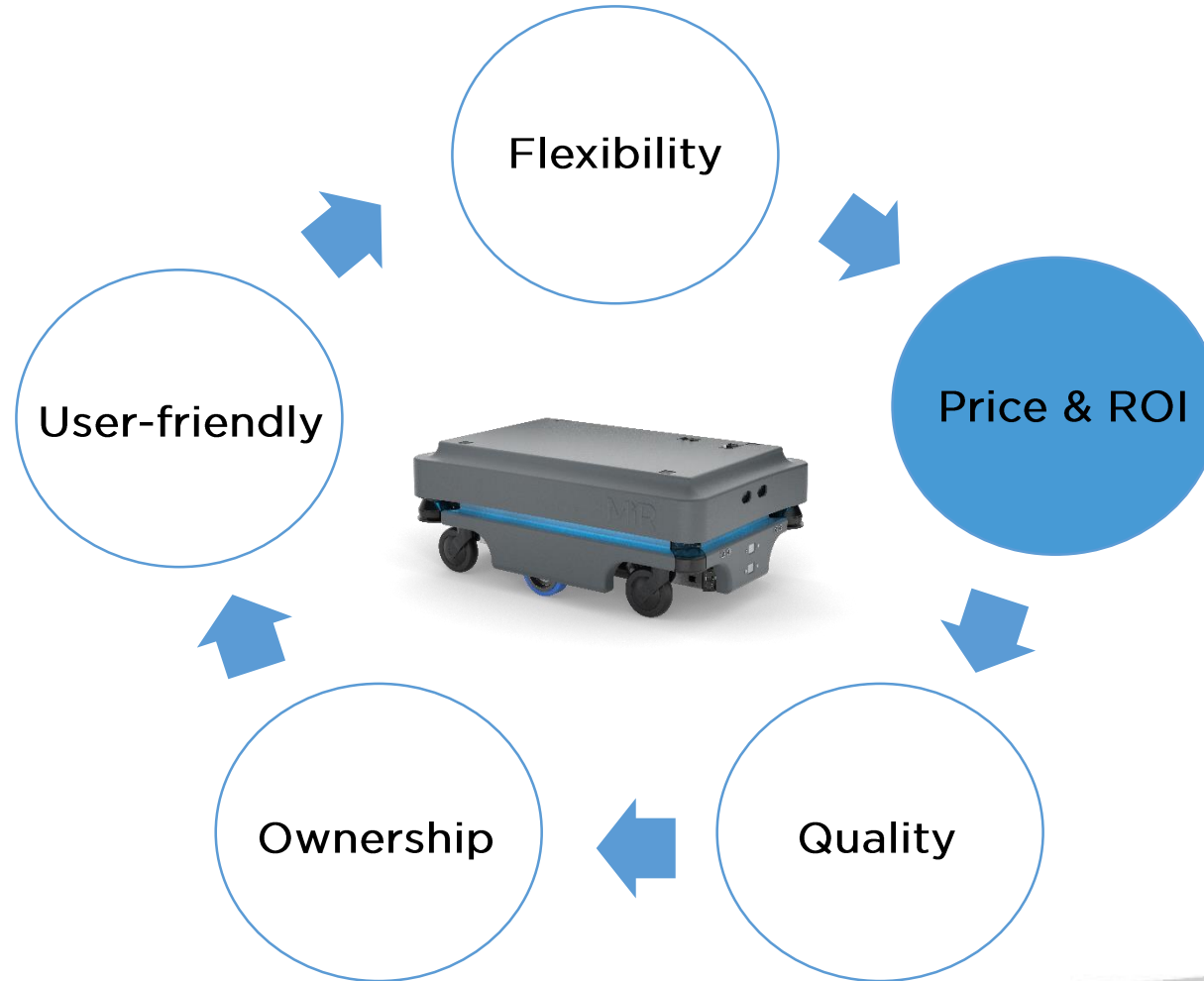
# The customer experience



# The customer experience

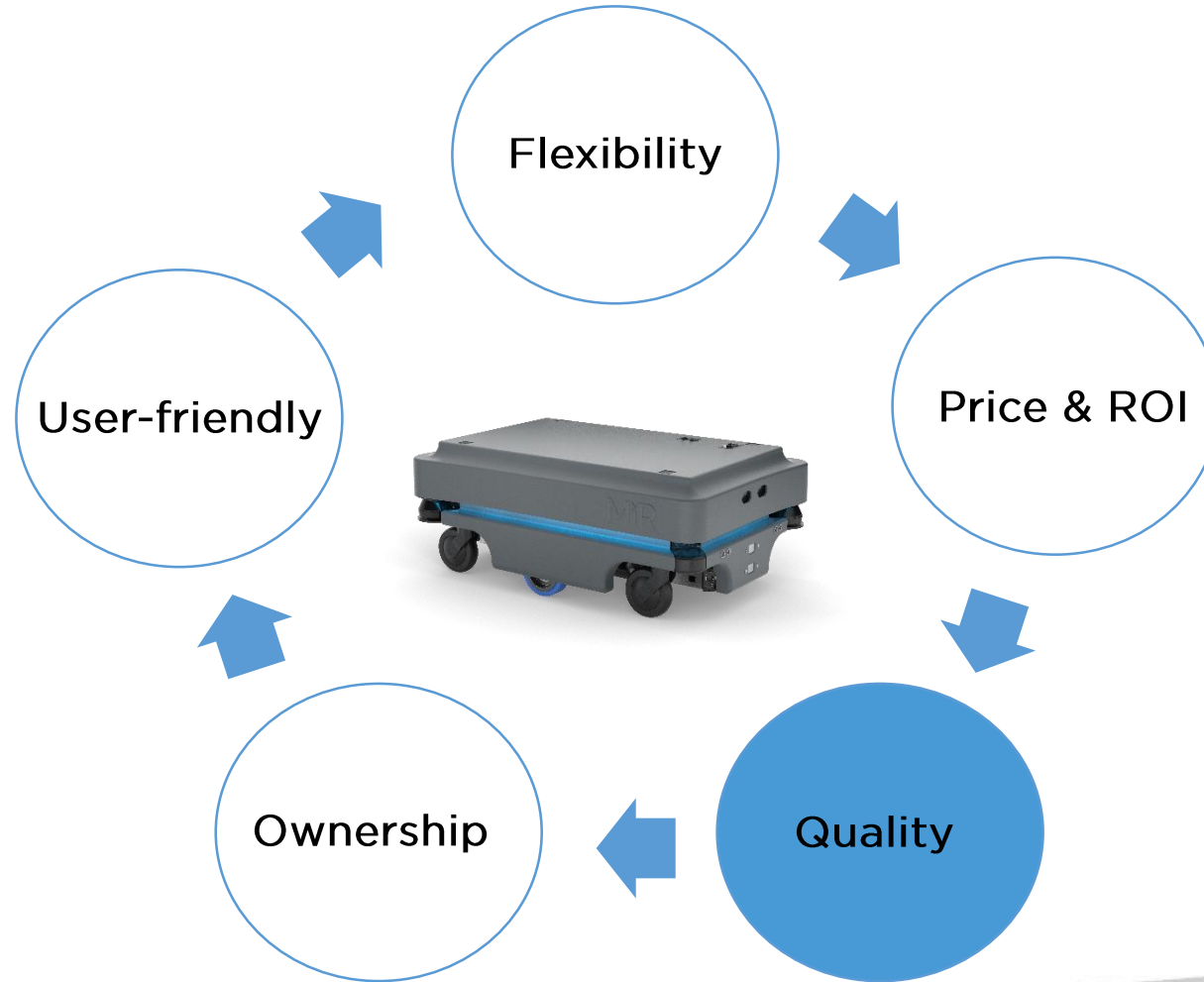


# The customer experience

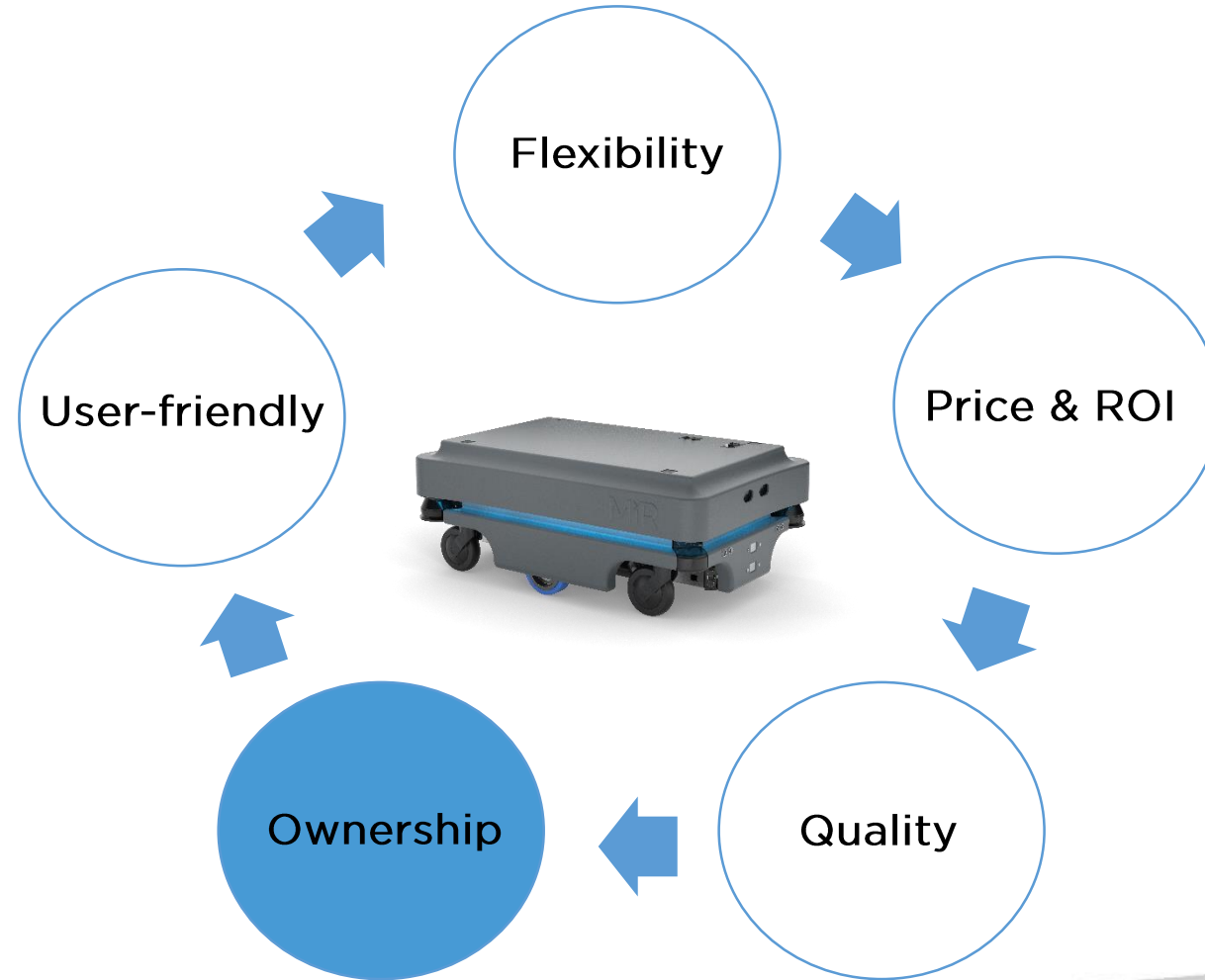




# The customer experience



# The customer experience





- American Fortune 100 software-industrial Company
- Founded in 1885
- 2017 revenue: USD 40.4 billion
- 130,000 employees worldwide

# Honeywell

THE POWER OF **CONNECTED**

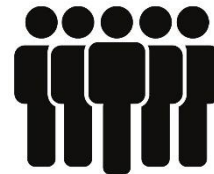
## Honeywell Analytics



Poole, UK



Produces gas detection equipment



250 employees

The Future  
In Motion

# Honeywell Businesses at a Glance



## Aerospace

Our products are used on virtually every commercial and defense aircraft platform and in 100M+ vehicles worldwide and include aircraft propulsion, cockpit systems, satellite communications, and vehicle turbochargers.



## Home and Building Technologies

Our products, software, and technologies are in more than 150 million homes and 10 million buildings worldwide helping customers control their comfort, security, and energy use.



## Performance Materials and Technologies

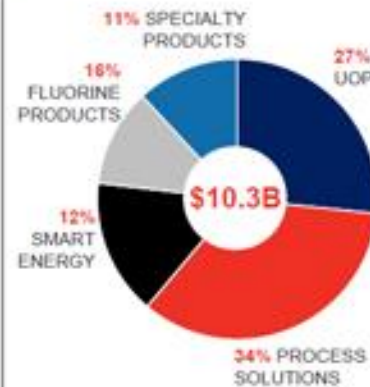
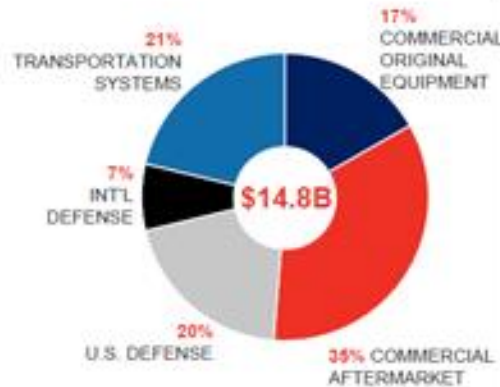
We develop advanced materials, process technologies, automation solutions, and industrial software that are revolutionizing industries around the world.



## Safety and Productivity Solutions

We improve enterprise performance and worker safety and productivity with our scanning and mobile computers, software, warehouse automation solutions, and personal protective equipment.

### 2017 Sales by Business





## Characteristics of Honeywell Analytics in Poole:

- LEAN and flexible operations
- Fully automated processes
- Forward thinking about industry 4.0 factory automation
- Requirement for automation: Payback period of less than two years for robots and machines

# Mobile robots at Honeywell







# The successful implementation



- Start with a vision of how you want the application to be, the end game, and break the implementation into small steps. Get each one working before moving on to the next.
- Have dedicated onsite resources, someone assigned to the project who can learn as the project is implemented.
- Understand your company's network requirements.
- Name your robots – this helps them integrate with the people.







Animation video

# The Future In Motion



**MIR**  
MOBILE INDUSTRIAL ROBOTS