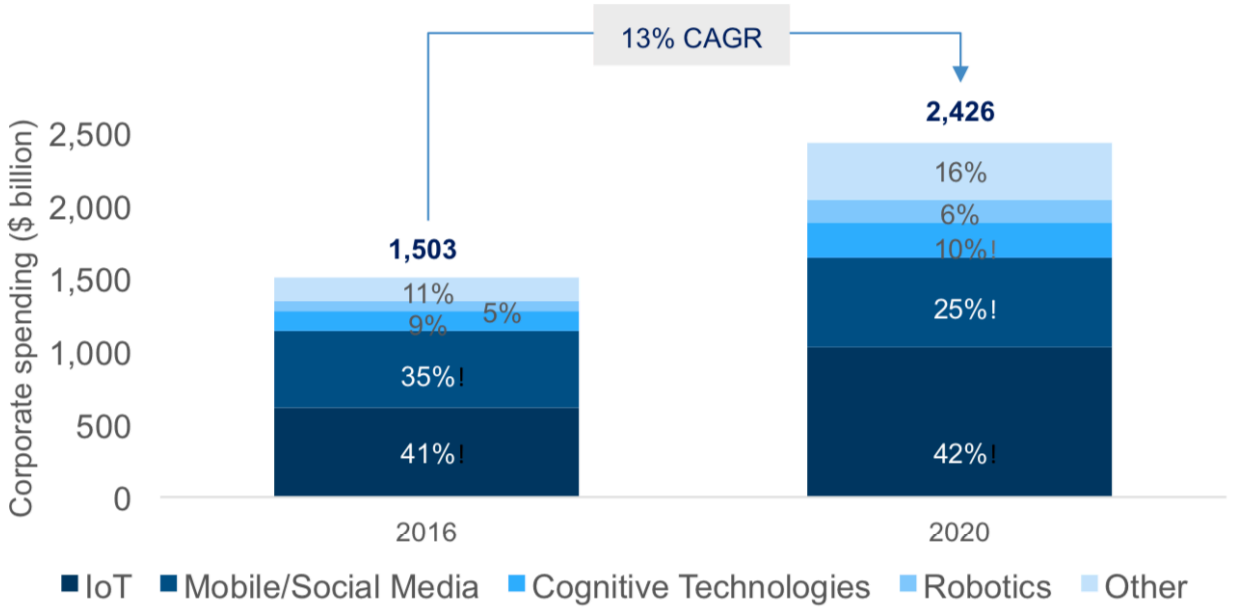
PROJECT PRODUCTION
INSTITUTE

Digital & PPM

PPI Symposium
04 December 2019



Note: CAGR = compound annual growth rate

Source: World Economic Forum/Accenture Analysis based on IDC estimates, excluding cross-industry spend ($80 billion in 2016 and $166 billion in 2020)

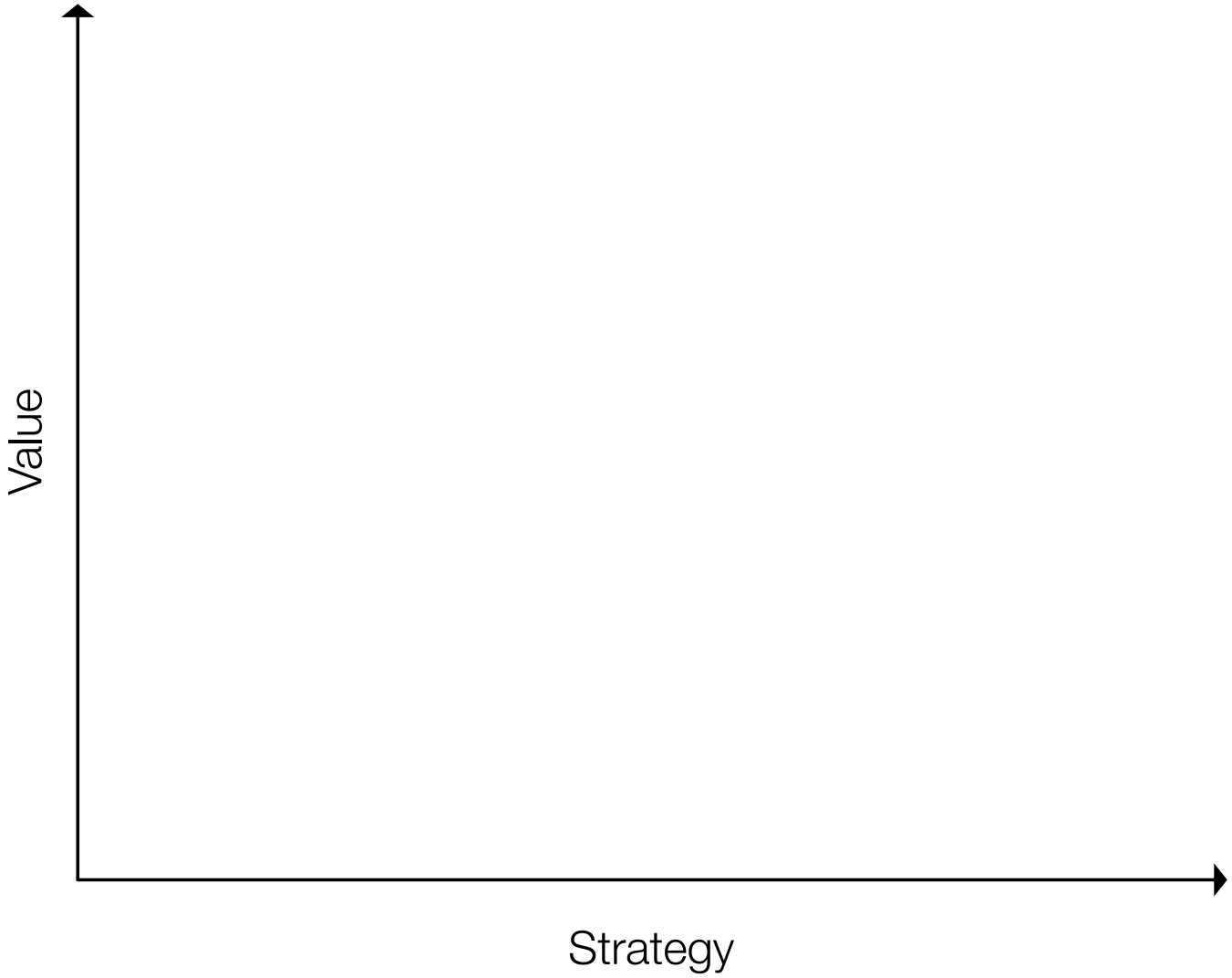
Corporate Spending on New Technologies, $ billion (2016-2020)

Unlocking success in digital transformations

October 2018 | Survey

Even digitally savvy industries, such as high tech, media, and telecom, are struggling. Among these industries, the success rate does not exceed 26 percent. But in more traditional industries, such as oil and gas, automotive, infrastructure, and pharmaceuticals, digital transformations are even more challenging: success rates fall between 4 and 11 percent.

McKinsey (2018)



Zabelle (2019)

Design

Make

Transport

Install

Production systems self-organize and optimize through Operations Science and Digital Technology

What is Internet of Things (IoT)?

A system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction (IoT Agenda, 2019)

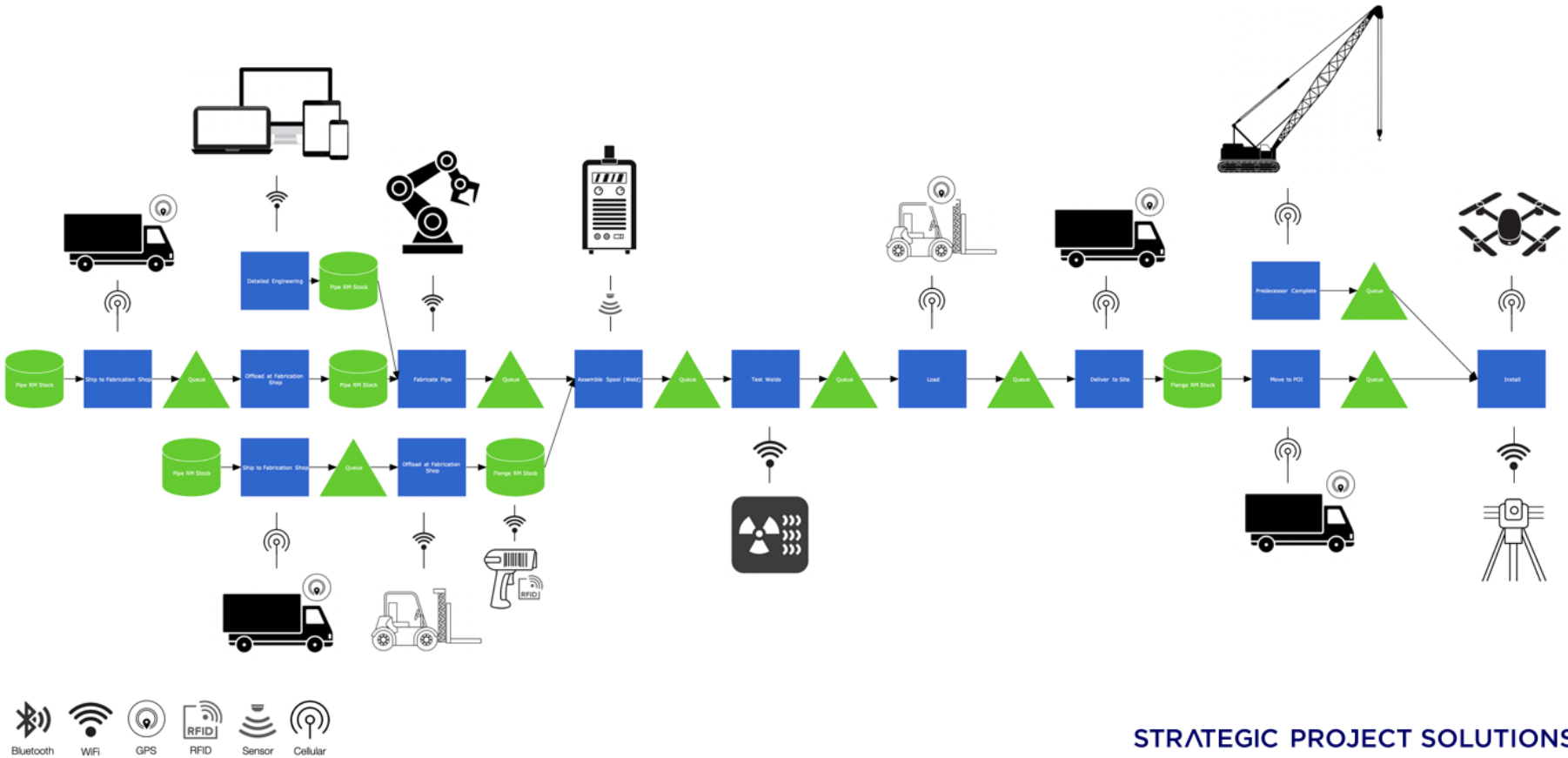
What is Internet of Things (IoT)?

A global infrastructure for the information society, enabling advanced services by interconnecting (physical and virtual) things based on existing and evolving interoperable information and communication technologies (Internet of Things Global Standards Initiative, 2019)

Industrial Internet of Things (IIOT)

- Industrial Application of IoT
- Evolution of Distributed Control System (DCS)

Anything that can be
connected will be connected!



STRATEGIC PROJECT SOLUTIONS®

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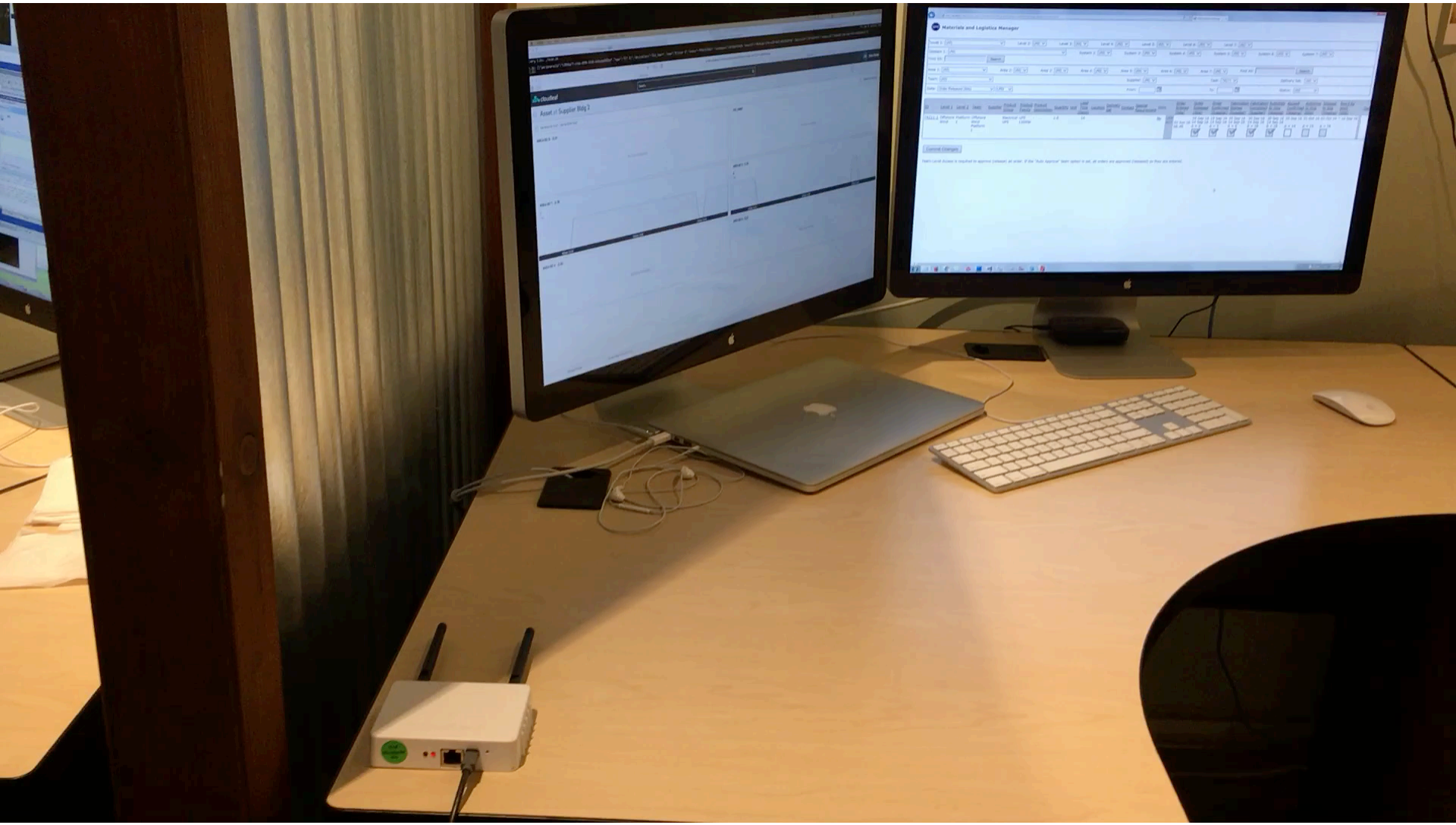
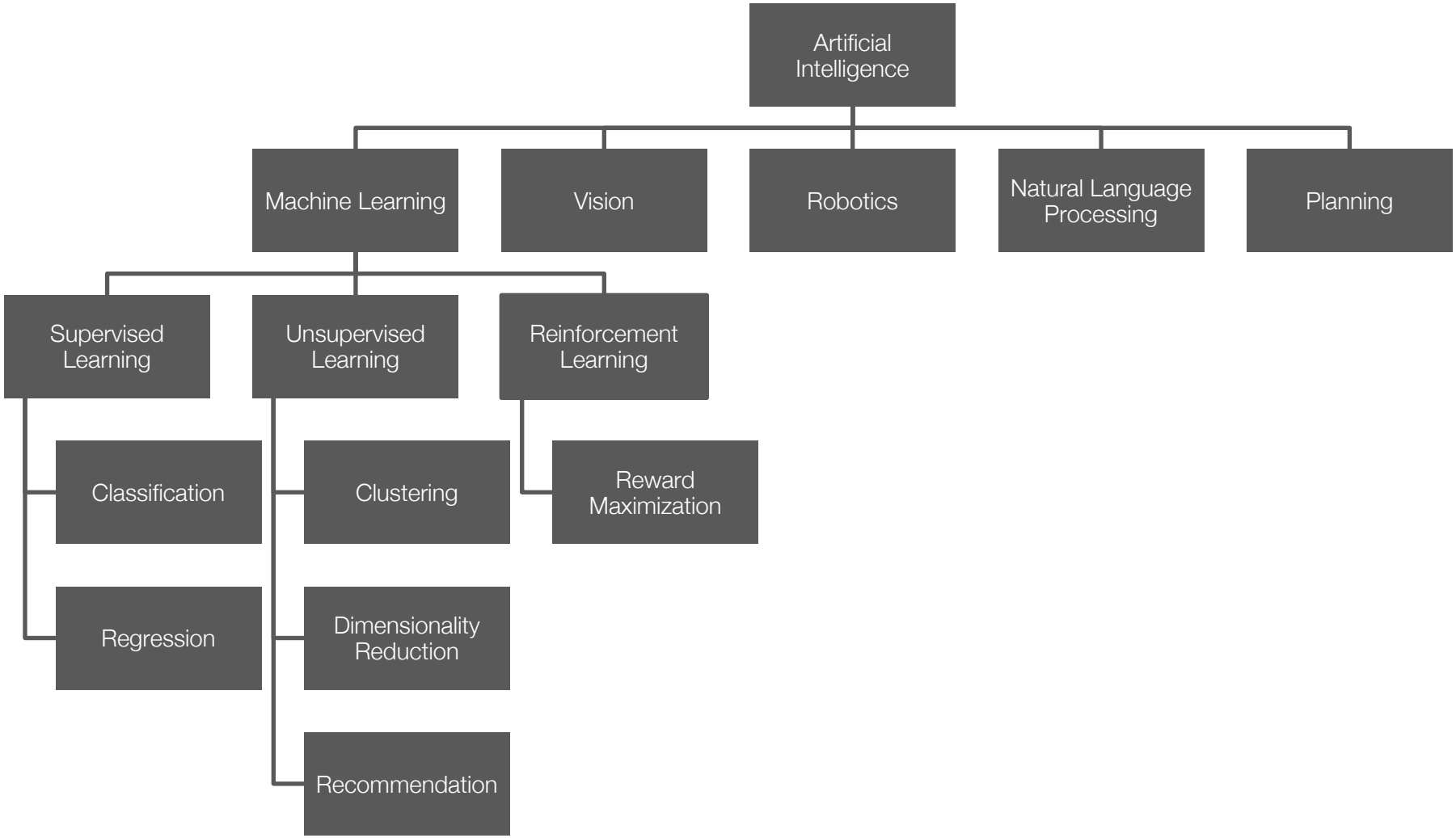


What is AI?

The science and engineering of making intelligent machines - John McCarthy (1956)

What is AI?

The ability of a machine to perform cognitive functions that we associate with human minds (such as perceiving, reasoning, learning, and problem solving) and to perform physical tasks using cognitive functions (for example, physical robotics, autonomous driving, and manufacturing work) - McKinsey (2019)



Maini V. & Sabri S. "Machine Learning for Humans"

Evolving definition due to “AI Effect”

“In the past, we would have said only a superintelligent AI could drive a car, or beat a human at Jeopardy! or chess. But once AI did each of those things, we considered that achievement obviously mechanical and hardly worth the label of true intelligence. Every success in AI redefines it.” – Wired (2014)

What framework is your digital strategy built on?

Design

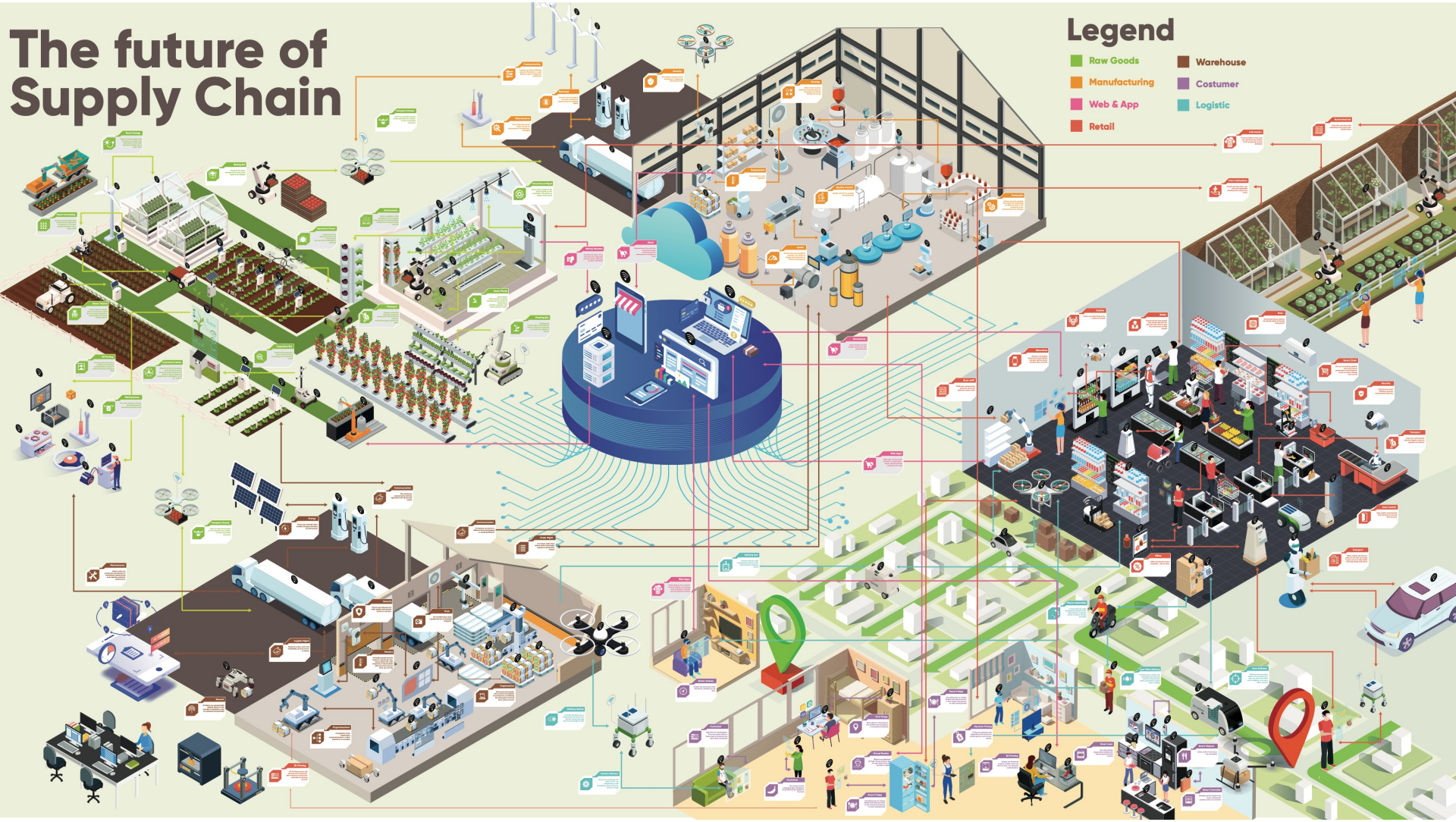
Make

Transport

Install

Design

Intelligent Supply Chain



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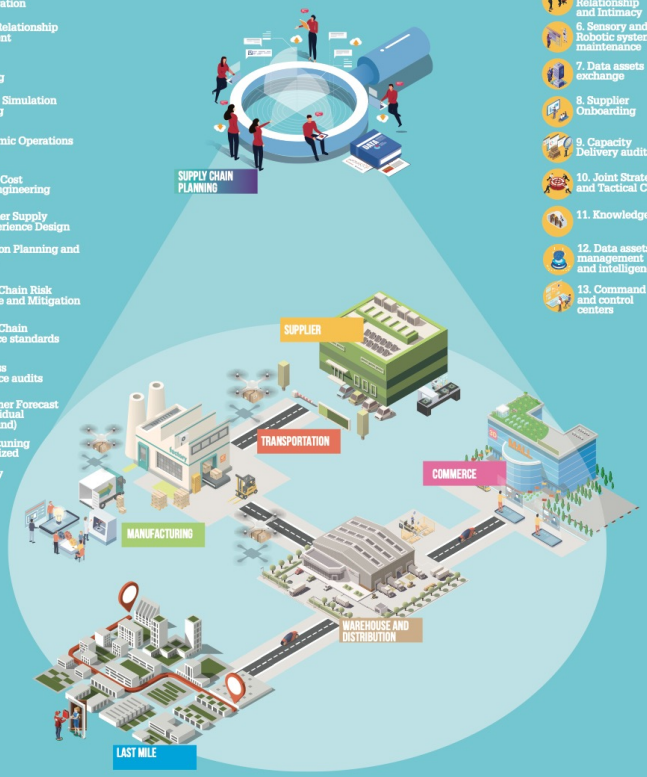
HUMAN JOBS IN THE AUTONOMOUS ERA



SUPPLY CHAIN PLANNING

1. Supply Chain Topology design
2. Dynamic Network Capacity Alignment
3. Business rules management
4. Customer demand and psychometric analysis
5. Supply Chain Node Activation
6. Partner Relationship Management
7. Partner Onboarding
8. Business Simulation and Testing
9. Algorithmic Operations Planning
10. Service Cost Tradeoff Engineering
11. Customer Supply Chain Experience Design
12. Exception Planning and Approvals
13. Supply Chain Risk Governance and Mitigation
14. Supply Chain performance standards
15. Business performance audits
16. Consumer Forecast Unit (Individual True Demand)
17. Hyper tuning Individualized Demand and Supply Models

SUPPLIER

1. Supplier selection
2. Design and Quality standards
3. Pricing and Negotiations
4. Contract Innovation management
5. Supplier Relationship and Intimacy
6. Sensory and Robotic systems maintenance
7. Data assets exchange
8. Supplier Onboarding
9. Capacity Delivery audits
10. Joint Strategic and Tactical Collaborations
11. Knowledge encoder
12. Data assets management and intelligence
13. Command and control centers

TRANSPORTATION

1. Routing Design
2. Service Level Agreement Creation And Adherence
3. Transport Command & Control
4. Inter Part Contract Enforcement
5. Fleet Maintenance & Cleaning
6. Infrastructure Upgrades
7. Loading And Unloading Intelligence
8. Policy And Traffic Counsel
9. Accident Forensics
10. Accident Claims Processing
11. Efficient And Standard Fleet Design Counsel
12. Fuel / Battery Replacements
13. Transportation Partner Hub Management
14. Fleet Capacity Sourcing
15. Customer Relationship Management
16. Software Upgrades
17. Algorithmic Operations and Intelligence Upgrades
18. Exceptions Management
19. Data Assets Management and Exchange Control
20. New Lane and Collaborative Move Setups
21. Human Needed Zoned Operations
22. Customer Experience and Branding
23. Safe Vehicle Standards and Os Enhancements
24. Traffic Command And Control

MANUFACTURING

1. Product Design
2. Quality & Reliability Standards Management
3. Quality Audit Control and Compliance
4. Infrastructure Upgrades Management
5. Installation Services
6. New Tech Testing And Certification
7. Knowledge Manager Rules Creation
8. Robotic Mechanics
9. Automation Trouble Shooting and Fault Management
10. Accident And Incident Forensics
11. Claims Processing
12. Site Business Rules
13. Preventive Maintenance
14. Command And Control Ops
15. Location Supervision
16. Rescue And Accident Management
17. Safety And Security Policy Setup
18. Software Upgrade
19. Algorithm Operations
20. Supplier Compliance & Claims Processing
21. Manufacturing Data Assets Management
22. Data Assets Management And Exchange Control
23. Process Knowledge Encoder And Enhancers

COMMERCE

1. Customer Engagement
2. Solution Selling
3. In-home Care
4. In-home Installations
5. Product Marketing
6. Personalization Planning And Execution
7. Layout Execution And Resets
8. New Product And Service Launch
9. Exception Management
10. Local and community event steward
11. Control Centre and Monitoring
12. Robotic Maintenance
13. Last 100ft Control
14. Asset Protection Enforcement
15. Algorithmic Retail Operations
16. Brand Relations
17. Individualized Retail Experience Design
18. Consumer Relationship Chemistry

WAREHOUSE AND DISTRIBUTION

1. Warehouse Flow Operations Design
2. Flow Expectations
3. Live Flow Monitoring
4. Dynamic Process Authoring
5. Algorithmic Flow Operations
6. Installation Services
7. Infrastructures Upgrades
8. Command And Control Center Monitoring
9. Exception Management
10. Robotic Maintenance
11. Training Of Collaborative Robots
12. Software Upgrades
13. New Process Setups And Policy Guide
14. Business Rules Management
15. Layout and Warehouse Flow Reset Approvals
16. Asset Repurchase Approval
17. Predictive Asset Maintenance
18. Asset Protection Policy And Adherence
19. Claims Processing
20. Robotic Troubleshooting And Fine Tuning
21. Vendor Compliance Auditing
22. Site Supervision
23. Data Assets Management
24. Process Knowledge Encoders
25. Automated Process Improvements

LAST MILE

1. Last Hub And Topology Design
2. Routing And Scheduling
3. Last Mile Experience
4. Last Litigations And Process Compliance
5. Last Contract Innovations
6. Capacity Predictions
7. Data Assets Management And Exchange
8. In-home Services
9. Customer Threshold And Last 10ft Services Urban
10. Personalized Services
11. Installation Services
12. Algorithmic Operations
13. Customer Escalations – Level 3
14. Returns Cleaning And Repackaging
15. Fuel Charging
16. Battery Swap Out Locations-Drones
17. Command And Control Centers
18. Last Mile Delivery Assets Maintenance
19. Airframe And Asset Design
20. Robotics Systems Maintenance

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