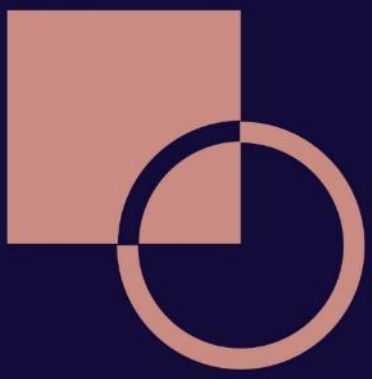
Research Executive Preview

INDUSIGHTS
DRIVING INDUSTRIAL INSIGHTS

From Programmable Arms to Cognitive Systems: U.S. Industrial Robotics Market, 2025–2030



A. Castanheira Mendonça
November 2025
Industrial Robotics

Legal Notice and Report Information

Title	From Programmable Arms to Cognitive Systems: U.S. Industrial Robotics Market, 2025–2030
Report Reference	REP20251029
Report Type	Research Executive Preview
Version	1
Number of slides	11
Publication date	November 2025
Author	A. Mendonca
Approved by	J. Roberts Ornaf

INDUSIGHTS Ltd.
Registered in England and Wales.
Company No. 12345678

Registered office:
10 Example Street,
London, W1A 1AA

TABLE OF CONTENTS

From Programmable Arms to Cognitive Systems: U.S. Industrial Robotics Market, 2025–2030

Executive Preview: The U.S. Industrial Robotics Market, 2025–2030

This document is a **Research Executive Preview**, part of **Indusights' early-access publication programme**.

It provides an advanced look at the analysis and findings that will be featured in our major 2026 market report.

Clients may pre-book access and contribute to final scope development during the early subscription window, open until February 2026. The full study will include segmentation, vendor shares, architecture trends, and forecasts.

Early bird subscription is open until February 2026.

Influence the 2026 report scope.

Subscribing during pre-publication period provides two key advantages:

Shape the Final Scope: Contribute during the dedicated 1.5-month review period to ensure the report addresses your specific strategic questions.

Secure Special Discounts: Receive the most favourable pricing, with discounts that decrease as we approach publication.

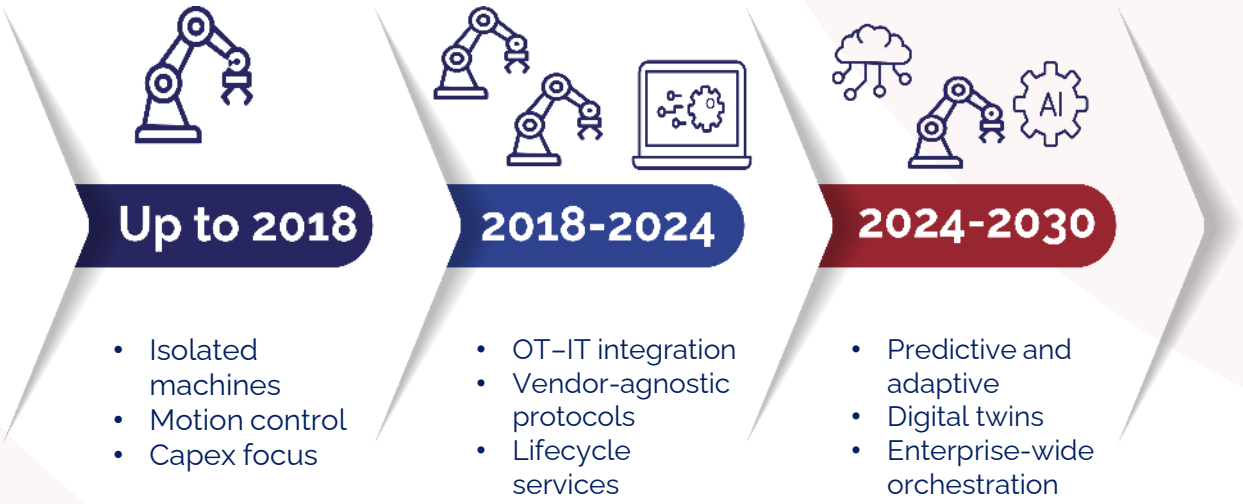
Introduction: Architecture and Competitiveness

Industrial robotics in the United States is undergoing a fundamental strategic shift. The initial adoption phase, characterized by deploying programmable, task-specific machines in isolated operations, has concluded. The market is now defined by integrated systems, cognitive capabilities, and a focus on long-term value retention.

Articulated robotic arms, the longstanding beacon of industrial automation, now function as components within broader, intelligent ecosystems. These systems incorporate predictive analytics, AI-driven control logic, and architectures designed for lifecycle upgradability.

This transition reflects a deeper change in competitive dynamics: value creation has decoupled from hardware and is now intrinsically linked to a system's data-connectivity and its capacity to evolve alongside advancements in AI and analytics.

The Robotics Evolution Stack (2015–2030)



Source: ©Indusights 2025

The Great Robotics Value Shift

Platform economics have overtaken hardware. The next battle is for orchestration.

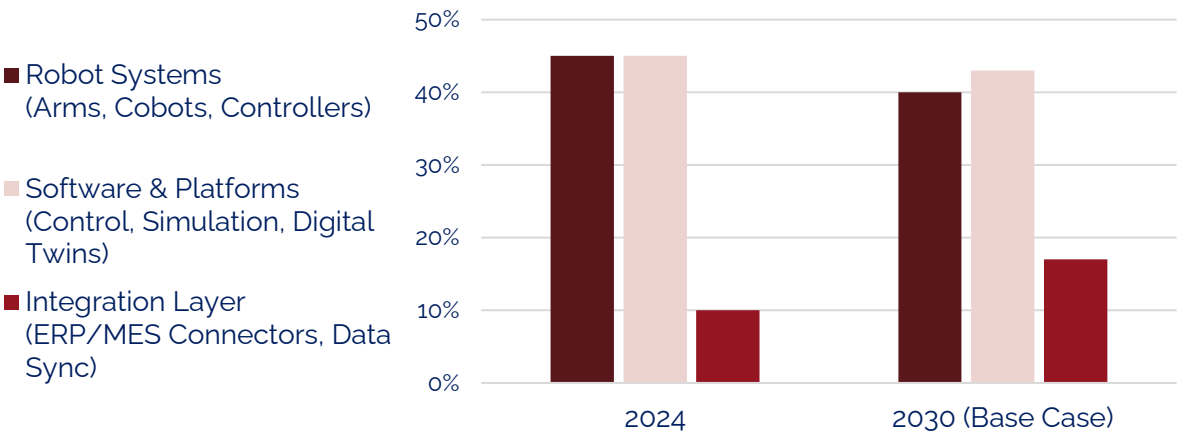
The core economics of industrial robotics market (USD 6.5 bn) have been redefined. In 2024, robot software and platform value reached parity with hardware, each accounting for 45% of the total product market.

This crossover signals the end of the hardware-led growth strategy. The primary focus for strategic investment has shifted from hardware assets to intelligent system control and data integration.

The most accelerated growth is occurring in the integration layer: connecting ERP and MES that transform robot fleets into visible, traceable, and dynamically reconfigurable corporate assets.

By 2030, hardware's share is projected to fall below 40%. Future market leadership will be determined by control over orchestration capabilities.

U.S. Market Share by Stack Layer, % of Product Value



Source: ©Indusights 2025.

Market Model, 2024–2030. Analysis excludes installation and services.

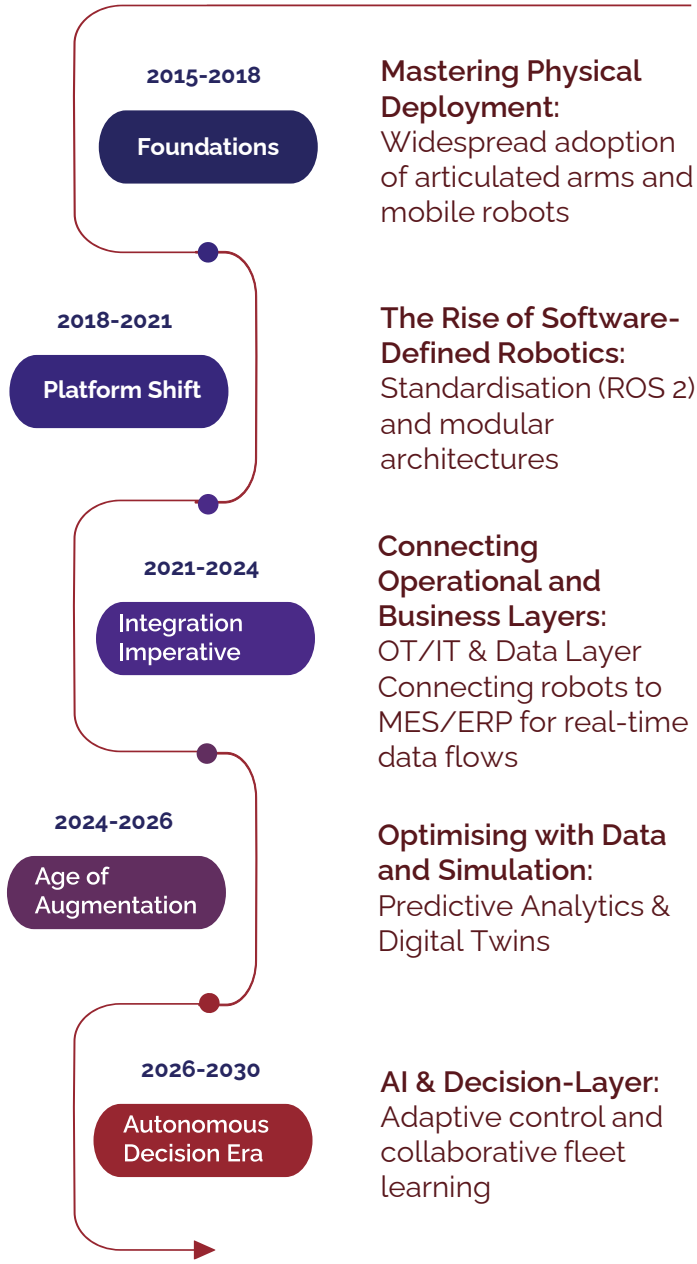
The Robotics Evolution Stack: From Hardware to Autonomy (2015-2030)

Over the past decade, robotics has transformed from a hardware-centric capital expense into a dynamic, software-driven value chain.

Each stage has shifted competitive advantage up the stack, from physical units to platforms, to intelligence.

The timeline reveals the strategic playbook: leaders will no longer just adopt technology. They will layer intelligence to fund their leap into autonomous operations. Our 2026 report directly addresses this, prioritizing solutions with proven availability and clear ROI timelines to meet urgent client demand.

Our 2026 Strategic Research provides the essential roadmap for this layered transition, with the market data and investment models to guide your priorities.



Source: ©Indusights 2025.

Strategic Implications: Navigating the Multi-Speed Reality

This evolutionary model reveals a critical strategic fact: **the competitive advantage is accelerating up the stack**, from physical assets to cognitive capabilities.

While companies operate across multiple phases at once, leadership requires mastering the present while investing in the future.

- **Companies focused on legacy phases or purely on orchestration** risk being trapped in the "hardware trap," competing on cost alone.
- Leaders are already **building the data foundations and AI partnerships** required for the cognitive era.

The compression of these phases means the window to build data and AI foundations is closing. The models that succeeded in the Integration phase will be insufficient for the Augmentation wave and obsolete for the Cognitive leap.

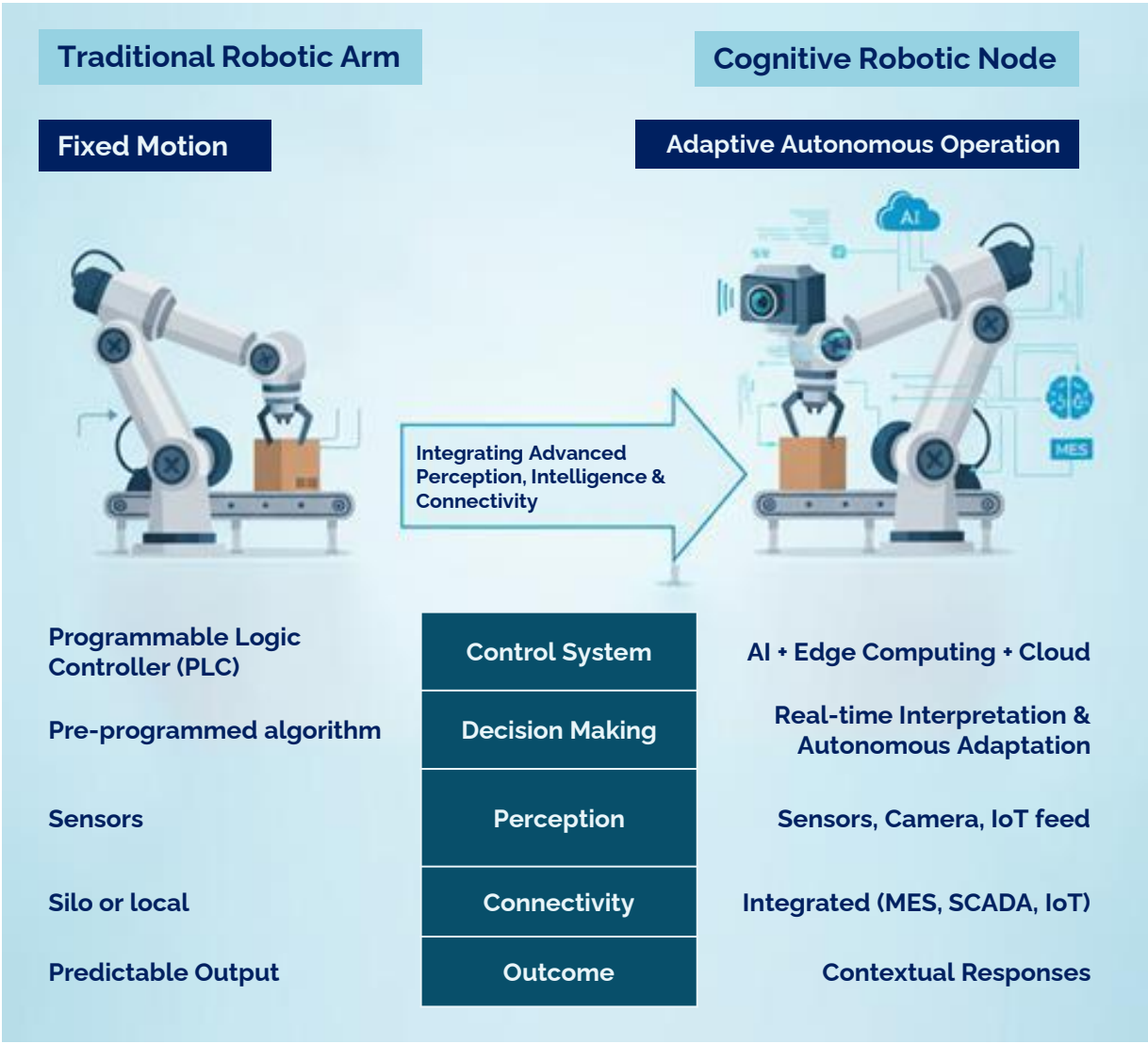
The 2026 Research Report provides the essential playbook.

The 2026 research aims to identify the key performance indicators for intelligent systems and maps the evolving vendor landscape. This gives manufacturers the concrete benchmarks to gauge their progress and the clarity to choose the right technology partners for the autonomous future.

These indicators measure a system's adaptability and intelligence, such as its task changeover speed, its success rate in unstructured environments, and its ability to predict its own maintenance needs.

The Rise of the Cognitive Robotic Node

A **cognitive robotic node** is an articulated industrial robot equipped with advanced perception, connectivity, and processing capabilities that enable it to interpret live data, make autonomous decisions, and adapt its operations in real time. Unlike traditional robotic arms, cognitive nodes function as intelligent components within larger digital systems, integrating with edge computing, MES, and AI control layers.



Source: ©Indusights 2025

The Economics of the Cognitive Node: Where Value is Captured

The Intelligence Stack is the Growth Engine

The software layers that enable cognitive capabilities such as digital twins, simulation, and motion control are now the fastest-growing segments of the robotics market.

- **Digital twins Compound Annual Growth Rate (CAGR) 2024-2030 26%**
- **Simulation CAGR 2024-2030 19 %**
- **Motion control CAGR 2024-2030 17%**

Adoption of technologies for real-time decision-making and autonomous operations is progressing at pace and the next forecast period will see this trend accelerate.

The Market Pays a Premium for Intelligence

Average Selling Price data confirms that cognitive capabilities are already monetized.

- **AI-integrated platforms typically range between 70,000 and 150,000 USD**
- **Conventional articulated robots average between 60,000 and 90,000 USD**

The clear price differential shows the market values orchestration and adaptability over isolated automation.

Strategic Implication

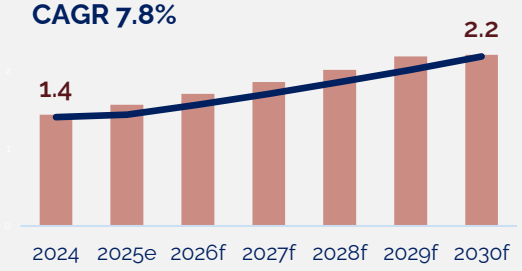
Competitive advantage stems from a system's integration with the intelligence stack, not from its physical components alone.

Our 2026 report delivers the complete financial analysis behind this shift, including granular market sizing, ASP forecasts, and a vendor landscape.

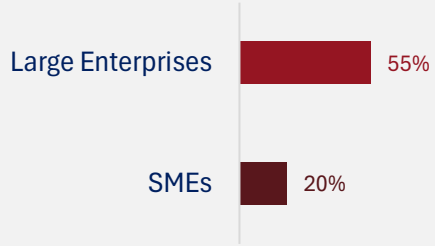
Quantitative Overview 2024-2030

Articulated robots are the core of industrial automation, with a market value of USD 1.43 bn in 2024. Projected to grow to **USD 2.2 bn by 2030**, the market is defined by an adoption gap between large firms and SMEs, and a clear price premium for intelligent, cognitive platforms.

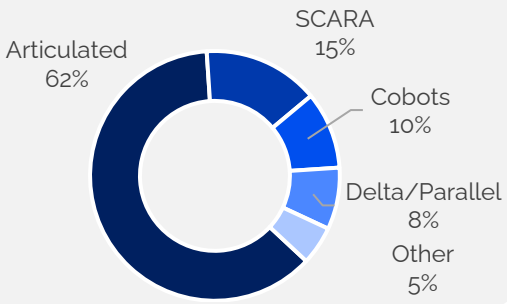
Industrial Robot Market 2024-2030, Value, USD bn
CAGR 7.8%



Adoption Rate by business size, 2024



Market Share by category of Robots, 2024



RaaS adoption tripled since 2021

RaaS Current SME penetration remains below 15%

RaaS expected to serve 1 in 4 SME robotics deployments by 2026

Robot Type	Min. Price	Avg. Price	Max. Price
Conventional Robots	60,000	75,000	90,000
Cognitive Platforms	70,000	110,000	150,000

The Research Executive Preview Program

This preview provides selected insights from our forthcoming strategic report, "From Programmable Arms to Cognitive Systems: The 2026 U.S. Articulated Robotics Market."

It is designed to offer an advanced understanding of critical market shifts and to provide a window for client engagement before the final report is produced.

Early-Bird Subscription Benefits:

- **Influence the Scope**: Contribute to the final research questions and segmentation.
- **Secure Preferential Pricing**: Receive a discount that decreases as publication approaches.

This research is part of the broader Indusights program focused on automation, data integration, and operational performance across industrial sectors.

To learn more about this research or to pre-book the full report, visit
www.indusights.com
or contact **info@indusights.com**