



Workforce Reinvention **Blueprint**

Aerospace and Defense Industry

How AI and Automation will Transform the Workforce Based on ReeJig's Proprietary Work Ontology™ Intelligence

How AI is Reinventing the Aerospace and Defense Industry

The Aerospace and Defense Industry is a colossal force in the global economy, generating over \$955 billion each year.

Top 3 Concerns Facing Aerospace and Defense CEOs in 2025

1. Supply Chain Disruptions
2. Workforce Shortages and Talent Acquisition
3. Integration of AI and Unmanned Systems

Focus Area 1: Workforce Shifts

Projected Workforce Shifts in 2025 and Beyond

Where AI and Automation Will Drive Operational Effectiveness

1

Increased Focus on Predictive Maintenance

The role of Predictive Maintenance Engineer is emerging as **AI-powered tools enable proactive monitoring and repair**, significantly reducing downtime and operational disruptions.

This shift drives **efficiency gains of up to 60%**, **saves airlines \$5–8 million annually per fleet**, and allows technicians to manage 30% more equipment without increasing headcount.

2

Embracing Digital Twin Technology

There's a clear shift to digital twin simulation, **revolutionizing design and lifecycle management** with a 50–55% efficiency boost.

This shift cuts **design cycle costs by 30%**, **saving \$10–15M per aircraft project**, and reduces prototype iterations. Demand for Digital Twin Engineers is set to grow 20–25% annually.

3

AI-assisted Cybersecurity

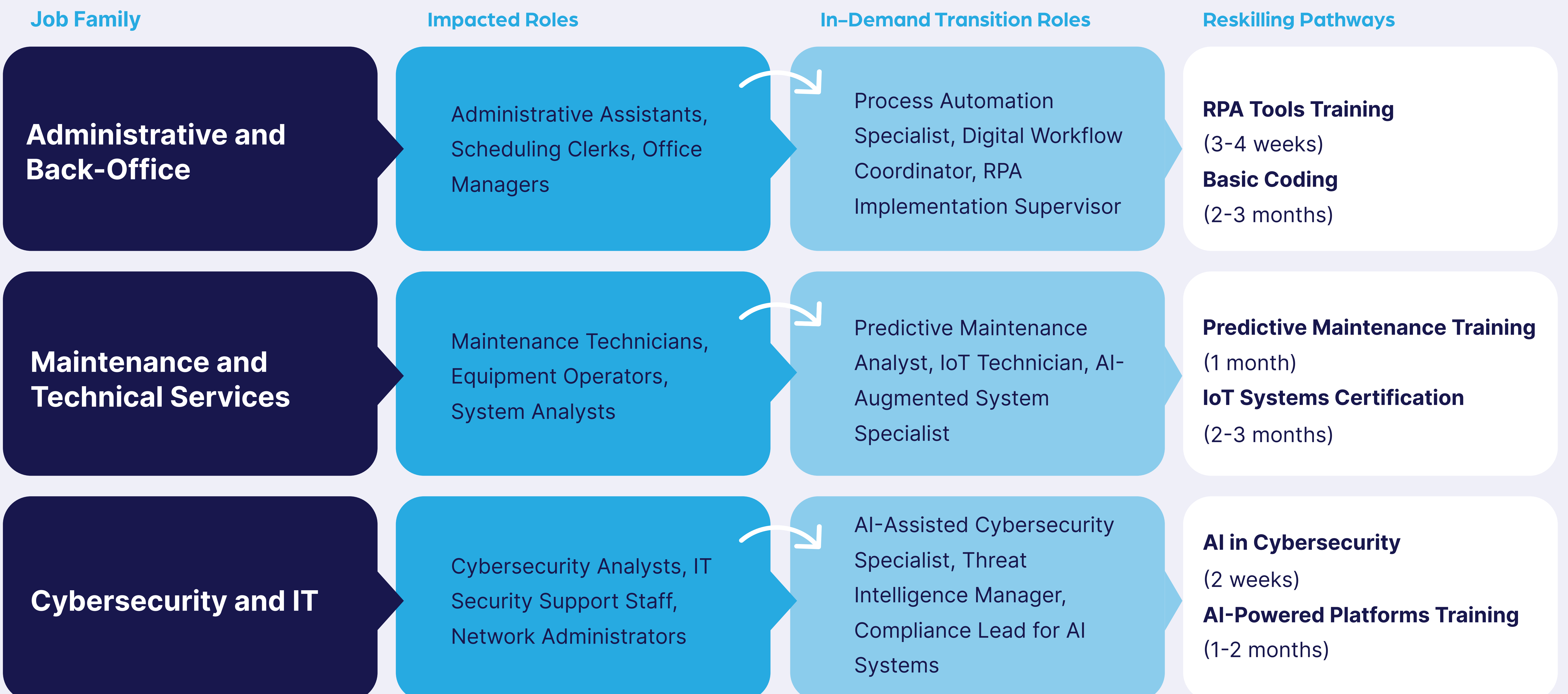
Shifting to AI-assisted cybersecurity will **automate 40% of threat detection and response**.

This transition accelerates incident resolution, reduces breach costs by \$3.8M per incident, and delivers a 10x ROI for companies. Demand for cybersecurity professionals is **projected to grow by 30%** by 2026.

Focus Area 2: Roles Impacted by AI

Key Roles Impacted and Reskilling Pathways for 2025

How Impacted Roles Can Transition to In-Demand Roles



Focus Area 3: Driving Operational Effectiveness

2025 AI Strategies to Boost Operational Effectiveness

Prioritized Roles for AI Transformation based on AI Potential Index, Operational Efficiency Index & Time to Benefit Realization

1

Predictive Maintenance Engineer

This role enhances aircraft reliability by minimizing unplanned maintenance through AI-powered diagnostics and predictive algorithms. It accelerates time-to-repair while improving equipment uptime..

With an AIPI of 2.98 and an OEI of 84%, this role is a top priority for investment. The high potential for automation and improved resource utilization makes it critical for transformation in industries like A&D, where maintaining operational readiness and minimizing downtime are essential to sustaining competitive advantage.

AI Potential Index (AIPI) Score: 2.98

Breakdown: Potential Automation Proportion: 70%, AI Maturity/Risk Adjustment: 0.85, Current Automation Proportion: 20%

Operational Efficiency Index (OEI) Score: 84%

Breakdown: Time Savings: 35%, Cost Savings: 25%, Process Improvement Factor: 1.4

Time to Benefit Realization: Short-Term (6-12 months)

2

Cybersecurity Analyst

This role is essential for improving security and efficiency, leveraging AI to automate 40% of threat detection and response, reduce breach costs by \$3.8 million per incident, and enable teams to manage more systems effectively.

With an AIPI of 2.0 and an OEI of 72%, this role is a top investment priority. Its automation potential and rapid AI deployment make it crucial for industries like Aerospace and Defense, where safeguarding systems and responding to cyber threats are essential for security and operational integrity.

AI Potential Index (AIPI) Score: 2.0

Breakdown: Potential Automation Proportion: 50%, AI Maturity/Risk Adjustment: 0.8, Current Automation Proportion: 30%

Operational Efficiency Index (OEI) Score: 72%

Breakdown: Time Savings: 25%, Cost Savings: 15%, Process Improvement Factor: 1.4

Time to Benefit Realization: Short-Term (6-9 months)