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# Aerospace & Electronics Overview

**Steve Zimmerman, President**

# AEROSPACE & ELECTRONICS

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MARKET GROWTH, EXPANDING THE CORE, AND BREAKTHROUGH INNOVATION

# EXPECTING STRONG END MARKET RECOVERY

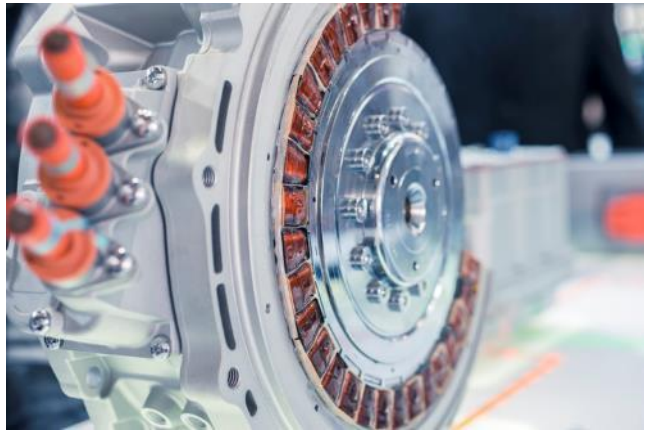
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**Secular and Cyclical Drivers**

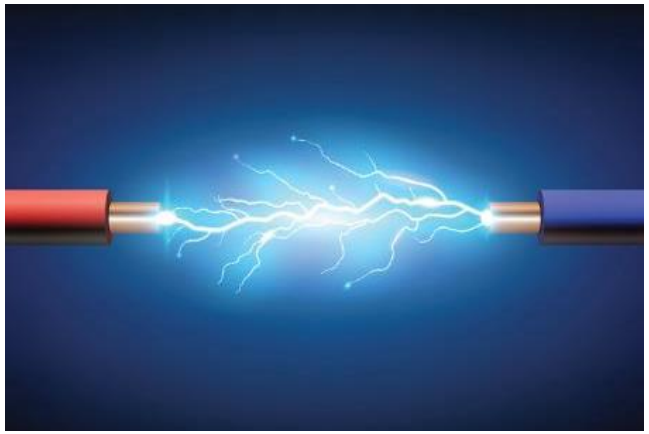
- Commercial aviation rebound
- Favorable demographics
- Strong defense budgets



# ACCELERATING GROWTH FROM CONTINUED INVESTMENTS

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**Consistent Investment**

- Expanding addressable market
- Aligning with secular trends
- Delivering breakthrough innovations



# GROWING OPPORTUNITY FOR INORGANIC GROWTH

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## Adjacencies Leveraging Core Competencies

- Power Conversion
- EMI Design and Assembly
- Condition and Position Sensing
- Pressure and Flow Measurement
- Flow Management
- Liquid Cooling
- System Control Algorithms
- Electric and Hydraulic Actuation
- High Frequency Signal Processing
- RF Engineering

## Bolt-Ons to Existing Solutions

- Fluid Management
- Landing Systems
- Sensing Systems
- Power Solutions
- Microwave Solutions

# BUILDING ON A STRONG FOUNDATION

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- Ethical Culture
- Philanthropy, Sustainability, Equality
- Crane Business System








# AEROSPACE & ELECTRONICS

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MARKET GROWTH, EXPANDING THE CORE, AND BREAKTHROUGH INNOVATION

# OUR HISTORY

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| | |
|---|---|
| 1904 | Lear Romec |
| 1943 | Hydro-Aire |
| 1947 | P.L. Porter |
| 1954 | Merrimac |
| 1956 | Polyflon |
| 1957 | ELDEC |
| 1958 | Keltec |
| 1969 | Interpoint |
| 1982 | Signal Technology |

- Fluid Management
- Landing Systems
- Sensing Systems
- Power Solutions
- Microwave Solutions

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**RICH HISTORY OF LEGACY BRANDS TRANSFORMED INTO AN INTEGRATED OPERATING COMPANY**

# STRONG FOUNDATION ON LEGACY PLATFORMS

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Mature Programs

Aftermarket Support

Spares & Repairs

**LIFE-OF-PLATFORM PRODUCTS AND SERVICES PROVIDE ANNUITY-LIKE REVENUE STREAM**

# LONG TERM GROWTH FROM HIGH VOLUME PRODUCTION

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737 MAX




A320neo




C919

## COMMERCIAL MARKET RECOVERY GAINING MOMENTUM

# STRONG POSITION ON ALL MAJOR MILITARY PROGRAMS

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F-35



KC-46



Patriot Missile System

## HIGH-PROFILE AND CLASSIFIED DEFENSE APPLICATIONS DRIVING GROWTH

# DIRECT LINE-OF-SIGHT TO STRONG CORE BUSINESS GROWTH

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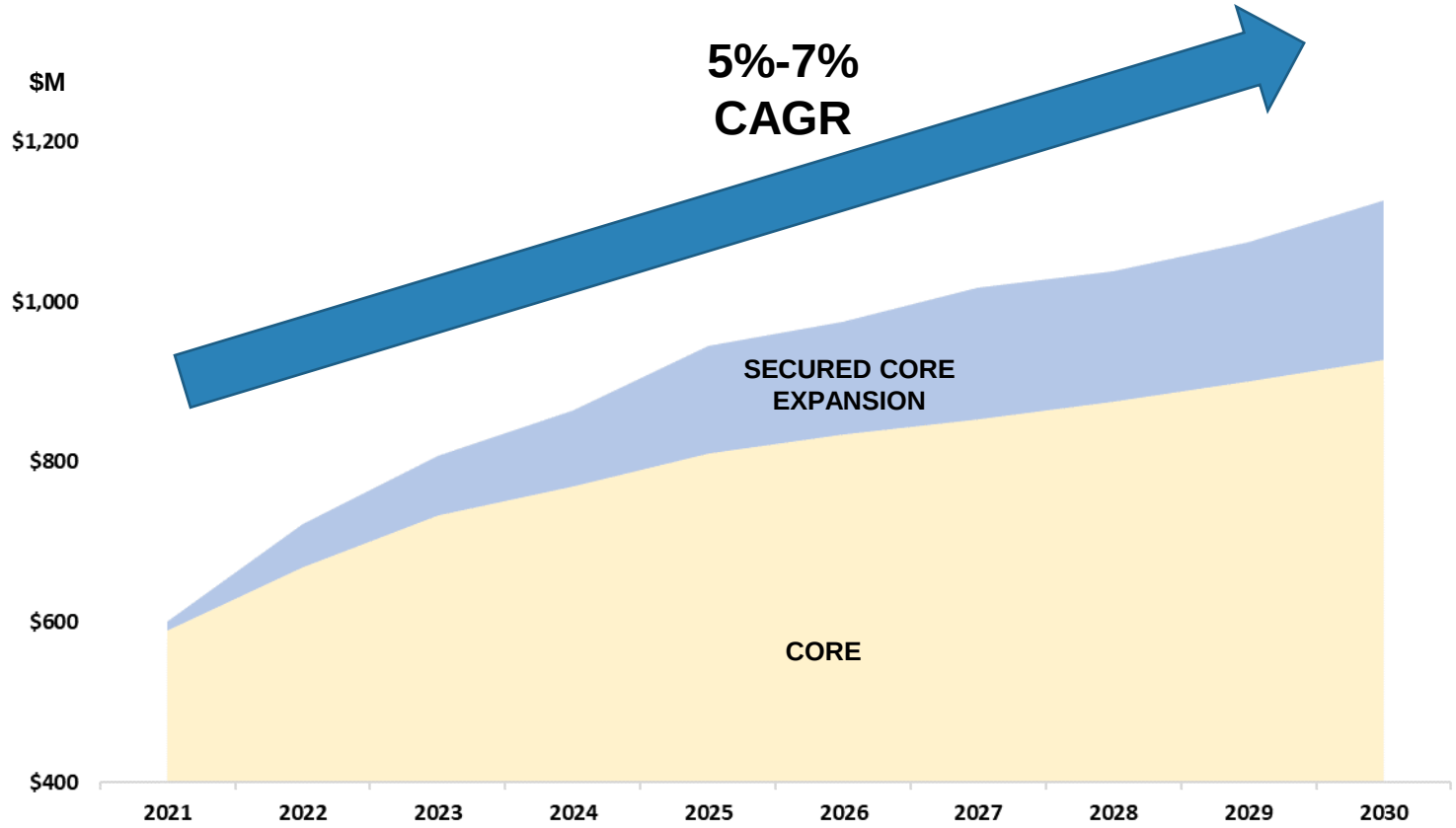
## Legacy Platforms

- Spares and Repairs
- Retrofits, Mods, Upgrades

+

## New Growth Platforms

- OEM Production
- Initial Provisioning
- Spares and Repairs




HIGH CONFIDENCE BASELINE GROWTH OF 5%-7% BASED ON CONTENT ALREADY WON

# DIFFERENTIATED TECHNOLOGY & ENGINEERING CAPABILITIES

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# DIFFERENTIATED TECHNOLOGY & ENGINEERING CAPABILITIES

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# AEROSPACE & ELECTRONICS CORE COMPETENCIES

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## Core A&E Capabilities



**Sensing Systems**

- Condition and Position Sensing
- Pressure and Flow Measurement



**Landing Systems**

- System Control Algorithms
- Electric and Hydraulic Actuation

**Power Solutions**

- Power Conversion
- EMI Design and Assembly



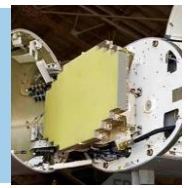
**Fluid & Thermal Management**

- Flow Management
- Liquid Cooling



**Microwave Solutions**

- High Frequency Signal Processing
- RF Engineering



# CAPTURING NEXT GENERATION SYSTEMS

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Electric / Hybrid
Military Vehicles



Alternative Propulsion
Aircraft

Low Earth Orbit (LEO)
Satellite Networks



Urban eVTOL




CRANE CORE COMPETENCIES ALIGNED WITH EMERGING GROWTH AREAS

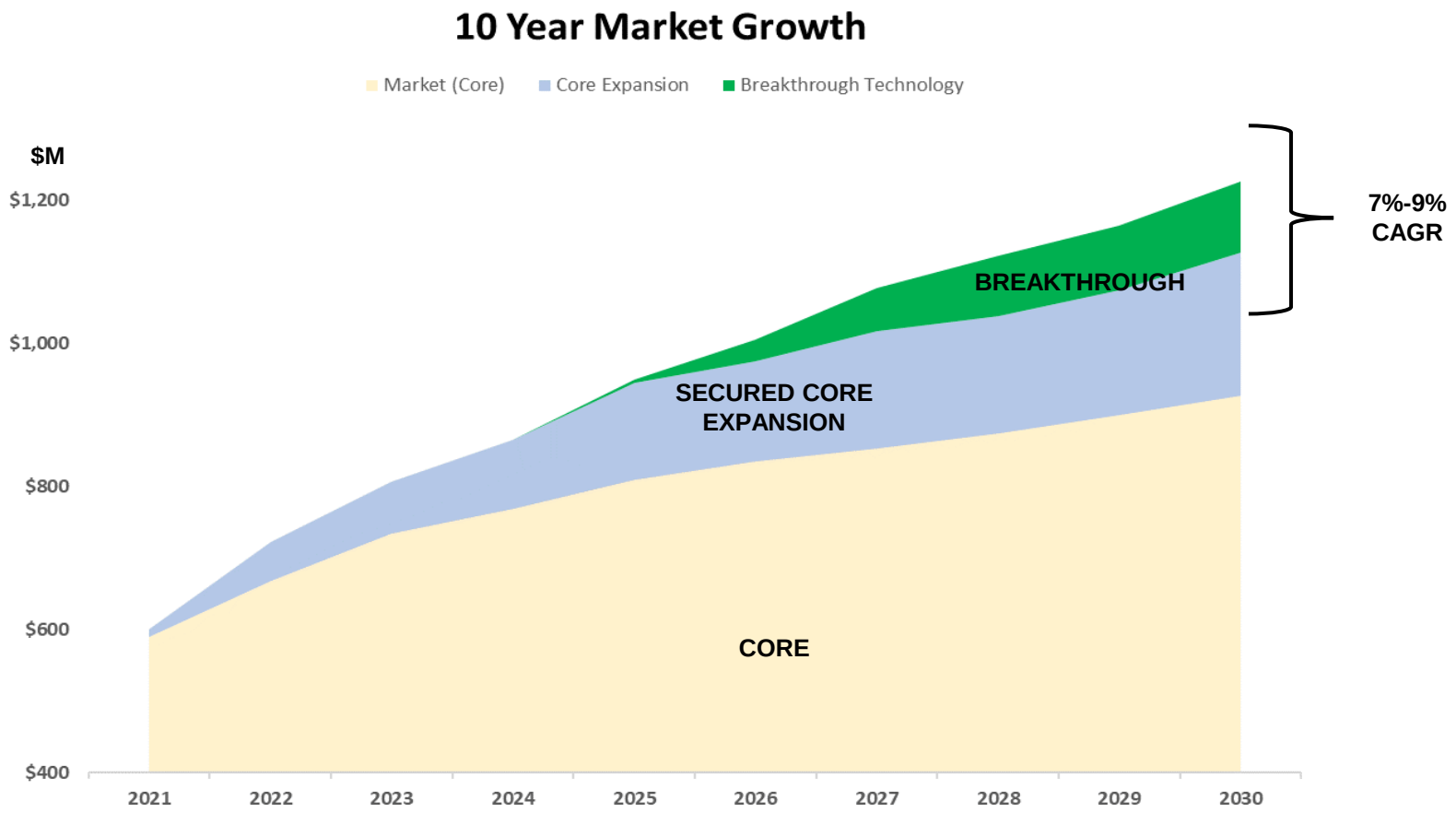
# DELIVERING BREAKTHROUGH INNOVATION

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**Aerospace & Defense market evolution providing the framework for our strategic initiatives**

**Positioning Crane for emerging markets**

**Adding further growth**




**ENHANCING GROWTH BY ADDRESSING AND DRIVING NEW MARKET TRENDS**

# GROWTH THROUGH ADJACENCIES

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## Core A&E Capabilities

- Power Conversion
- EMI Design and Assembly
- Condition and Position Sensing
- Pressure and Flow Measurement
- Flow Management
- Liquid Cooling
- System Control Algorithms
- Electric and Hydraulic Actuation
- High Frequency Signal Processing
- RF Engineering

*Adjacencies*

## Organic




## Acquisition



# LANDING SYSTEMS

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## Demonstrated Excellence

- All Boeing Commercial Aircraft
- All Major U.S. Military Platforms
- Superior System Performance
- Robust and Adaptable
  - Every Landing Gear and W&B Configuration
  - All Landing Environments



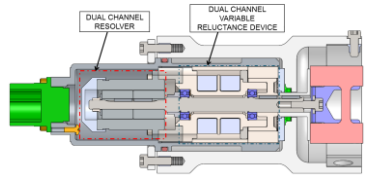






## Designing the Future

- Patented Zero Wheel Speed








- Brake Energy Management



LEVERAGING LEGACY SUCCESS INTO NEXT GENERATION TECHNOLOGIES

# MICROWAVE

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## Reliable Partner

- High performance
- High circuit density
- Tier 1 IMA supplier
- Strong OEM relationships



## Well Positioned

- Unprecedented program developments
  - F-35
  - SEWIP (U.S. NAVY)
  - PEREGRINE
  - U-2
- Emerging Opportunities
  - LEO communications
  - Next generation radar
    - Ground based
    - Airborne
  - Advanced IMAs

**EXPANDING OUR CORE AND WINNING NEW PROGRAMS**

# AEROSPACE & ELECTRONICS

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INNOVATIVE | TRUSTED | COLLABORATIVE



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