UNLEASHING NEW POSSIBILITIES **EMERSON**

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Emerson Attendees Company Leadership

David Farr Chairman and Chief Executive Officer

Mike Train President

Frank Dellaquila Senior Executive Vice President and Chief Financial Officer

Steve Pelch Executive Vice President and Chief Operating Officer

Bob Sharp Executive President, Commercial & Residential Solutions

Lal Karsanbhai Executive President, Automation Solutions

Sara Bosco Senior Vice President, Secretary and General Counsel

Mark Bulanda Senior Vice President, Planning and Development

Kathy Button Bell Senior Vice President and Chief Marketing Officer

Brent Schroeder Group President, Heating and Air Conditioning

John Rhodes Group President, Cold Chain

Jim Nyquist Group President, Systems and Solutions

Ram Krishnan Group President, Final Control

Tim Reeves Director, Investor Relations

Judson Duncan Vice President, Planning

Emerson Attendees Some of the Next Generation of Leaders

Peter Chin Automation Solutions

Dan Douglass Automation Solutions

Susan Hughes Automation Solutions

Pete Lilly Automation Solutions

Melissa Ruths Automation Solutions

Rob Sedlak Automation Solutions

Amy Goldschmidt Commercial & Residential Solutions

Jenny Lenhard Commercial & Residential Solutions

Craig Sumner Commercial & Residential Solutions

Brett Balasky Corporate Strategic Planning

Emily Thomas Corporate Strategic Planning

2019 Emerson Investor Conference New York City, NY

Thursday, February 14 th , 2019						
8:00 - 8:45	Business Overview / Strategic Update	David Farr				
8:45 – 9:30	Commercial & Residential Solutions	Bob Sharp				
9:30 – 10:00	Heating and Cooling	Brent Schroeder				
10:00 – 10:30	Global Cold Chain	John Rhodes				
10:30 - 10:45	Break					
10:45 – 11:30	Automation Solutions	Lal Karsanbhai				
11:30 – 12:00	Systems and Solutions	Jim Nyquist				
12:00 – 12:30	Machine Automation Solutions	Mike Train				
12:30 – 1:00	Final Control	Ram Krishnan				
1:00 – 1:15	Break					
1:15 – 2:00	Questions & Answers	Farr, Dellaquila, Train, Sharp, Karsanbhai				

2019 Investor Conference Business Overview / Strategic Update

David N. Farr Chairman and Chief Executive Officer February 14, 2019

Safe Harbor Statement

Our commentary and responses to your questions may contain "forward-looking" statements, which involve risks and uncertainties, and Emerson undertakes no obligation to update any such statements to reflect later developments. These risks and uncertainties include economic and currency conditions, market demand, pricing, protection of intellectual property, cybersecurity, tariffs, competitive and technological factors, and the impact of the Tax Cuts and Jobs Act, among others, as set forth in the company's most recent Annual Report on From 10-K and subsequent reports filed with the SEC.

Non-GAAP Measures

In this presentation we will discuss some non-GAAP measures (denoted with an *) in talking about our company's performance, and the reconciliation of those measures to the most comparable GAAP measures is contained within this presentation or is available at our website www.emerson.com under the investors tab.

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2019 Investor Conference

2019 Investor Conference Business Overview / Strategic Update

David N. Farr Chairman and Chief Executive Officer February 14, 2019

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2018 February Investor Conference -- Scorecard

Versus 2018 Actual Performance

Key 2018 Targets Were

- Achieve premium underlying sales* growth for all of Emerson: 5% 7%
- ✓✓ Drive strong earnings momentum within GAAP EPS by reaching \$3.05 \$3.15 EPS in 2018 -- ~20% GAAP EPS growth
 - ✓ Deliver another strong year of operating cash flow -- \$2.9+B -- 17% of sales
- ✓ Dividend per share increase of 2¢
- 1. Grew Underlying Sales* in Both Platforms
- 8% 10% 4%
 - ✓✓ Deliver positive underlying sales* growth within both platforms: 5 7% EMR growth
 - **√ √** Return Automation Solutions to above market underlying* growth: 6 8% in 2018
 - Continue strong, above market underlying* growth within Commercial & Residential Solutions -- 3rd year. Targeting another premium underlying *sales growth year: 4 6% in 2018
- 2. Continued Margin Expansion and Drove V&C Operating Margins* to 10%+ by 2nd half of 2018
- Strong profit margin performance within both platforms is important to return to Emerson consolidated margin improvement -- Especially within Automation Solutions -- Must leverage profitability at ~ 30% as sales growth returns and absorbs V&C lower margins
- Successfully integrated V&C acquisition and expanded margins to deliver Automation Solutions leverage goals <u>fiscal 2018 earnings / cash flow accretive</u>
- 3. Grew Operating and Free Cash Flow to Fund Growth and Shareholder Returns
- Continued focus on cash flow management as Emerson returns to growth by generating ~\$2.9B in operating cash flow
- ✓ Invest \$575M of capital, enhanced by new Tax Reform -- \$617M
 Maintain FCF / Net Income Conversion* ~120% -- 114%

We Successfully Hit Our Growth Targets in Both Platforms and Continue to Grow While Maintaining a Strong Focus on Margins and Cash Conversion

Emerson's 2018 Financial Performance --

Compared to Guidance at Last Year's Investor Conference

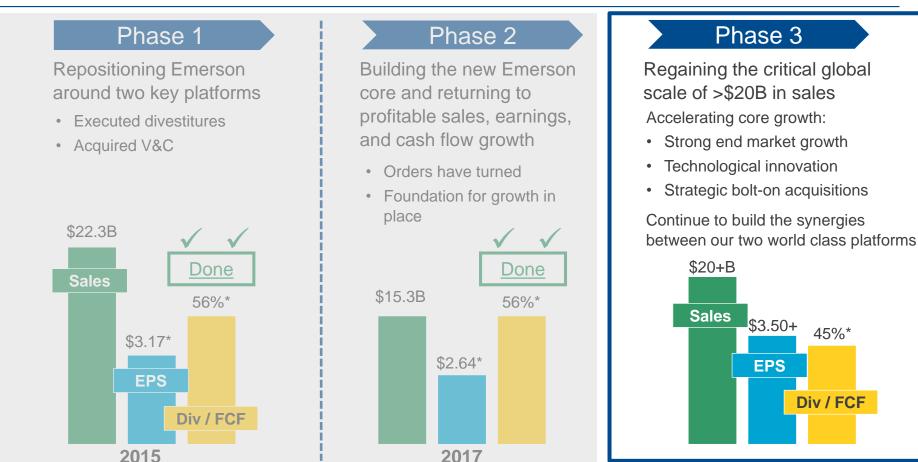
	2018 Guidance Feb. 2018 Investor Conference ¹	2018 Actual as Reported
Sales	\$17.0 - \$17.3B	\$17.4B
Underlying Sales Growth*	5% - 7%	8%
Gross Margin	~43.1%	42.9% 43.1% ¹
EBIT Margin*	~16.7%	16.2% <i>16.6%</i> ¹
Operating Cash Flow	~\$2.9B	\$2.9B
GAAP EPS Continuing Ops	\$3.05 - \$3.15	\$3.46
Dividends per share	\$1.94	\$1.94
Dividend to FCF Ratio*	53%	54%
Cash Returned to Shareholders	~\$2.0B	\$2.2B

¹ At the February 2018 Investor Conference, guidance did not account for results of the Tools & Test and Aventics acquisitions which were completed July 2 and July 17, 2018

The Emerson Global Team Delivered On February 2018 Guidance in Sales, Profits and Cash Flow, and Successfully Closed Several Acquisitions.

Performance in 2018 Led to Strong Orders Momentum Going Into Fiscal 2019

We Are Making Great Progress On Our Transformational Journey Goals, <u>as Outlined in 2016</u>



30-Jun-15 30-Sep-16 30-Sep-17 30-Sep-20

The Path Is Clear and We Are Aggressively Moving Forward -The Total Core Company Is Strong and Has Many Value Creation Opportunities
Through Organic and Acquisitive Growth

2018 Built a Strong Foundation for the New Emerson

Automation Solutions

\$214B Market ~\$11.4B 2018 Sales ~58,000 Employees

- 20+% Reported, 10% Underlying* Sales
 Growth <u>over double the served market</u>
- Strengthened fluid motion and control position with Aventics
- Bolstered software offerings with three unique acquisitions
- Acquired GE Intelligent Platforms 1/31/2019
- Engaging customers like never before through the Plantweb Digital Ecosystem

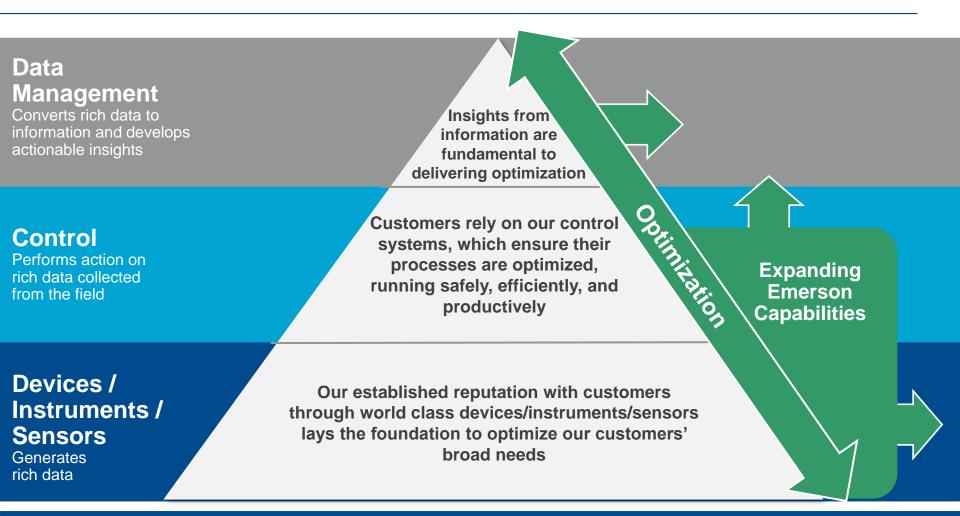
Commercial & Residential Solutions



- 2% Reported, 4% Underlying*
 Sales Growth <u>market premium</u>
- Added unique Cold Chain technology with Cooper-Atkins acquisition
- Acquired Tools & Test and combined with Ridge Tool to create #1 Professional Tools business
- Grew the mix of systems and solutions
- Continuing momentum at our Helix Innovation Center

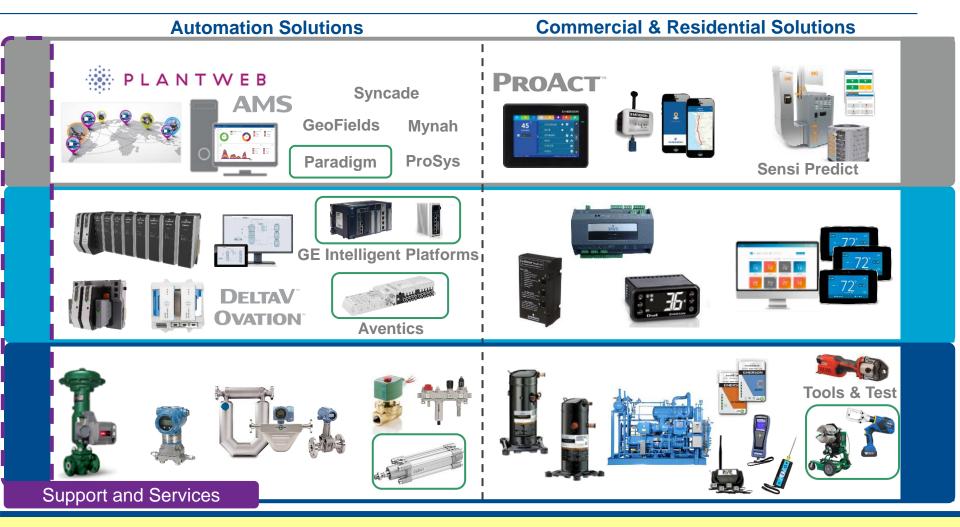
We Concentrate on the Most Complex and Important Challenges Facing the World in the Process, Industrial, Commercial, and Residential Markets and Deliver Unique Customer Solutions

Emerson's Two Platform Strategy: Continue to Move Up the Technology Pyramid Utilizing Our Strong Position in the Devices / Instruments / Sensors and Control Levels



Emerson Has Tremendous Credibility With Our Customers and We Are Uniquely Positioned to Provide Optimized Solutions for Our Customers Up and Down the Technology Pyramid -- in Both Platforms

Recent Investments and Acquisitions Set Foundation for the Success of the Next Emerson Generation Solutions



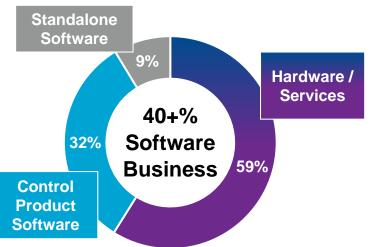
Emerson's Unique Offering of Intelligent Devices, Controls, and Software, Combined with an Unmatched Project Execution Framework, Domain Expertise, and Service Network Create the Strongest Industrial Position to Win

Emerson is Placing a Strong Focus on Developing Software Enabled and Software Driven Solutions

Automation Solutions

Commercial & Residential Solutions

\$2.1B Process Control Systems & Solutions



- Strong DeltaV and Ovation Brands
- Lifecycle Services / Guardian Support
- Intelligent Platforms adds Machine Control

With Paradigm and Roxar, total Automation Solutions Standalone Software = ~\$400M



ProAct

- Innovative and homegrown
- Monitoring Solutions in the Cold Chain



Sensi Thermostat Manager

- Emerson Software Development
- Centralized Control
- 1st of its kind



Sensi Predict

- High Quality Installs and Repairs
- Digital Transformation for HVAC Contractors

Emerson's Unmatched Expertise in Control Systems and Services in Automation Industries and Stewardship of User Comfort in Commercial & Residential Markets Are a Direct Result of a Unique Embedded and Standalone Software Focus

Software Expertise Across Several Industries via Internal Development, Acquisitions, and Alliances











- **Syncade** product portfolio creates deeper relationships in Life Sciences
- <u>TempTrax</u> Monitoring Solution for Healthcare Providers



- IBM <u>Food Trust Blockchain</u> Participation
- Food Service Temperature Monitoring



Ovation Digital Twin Embedded Simulation is truly unique in Power & Water Solutions

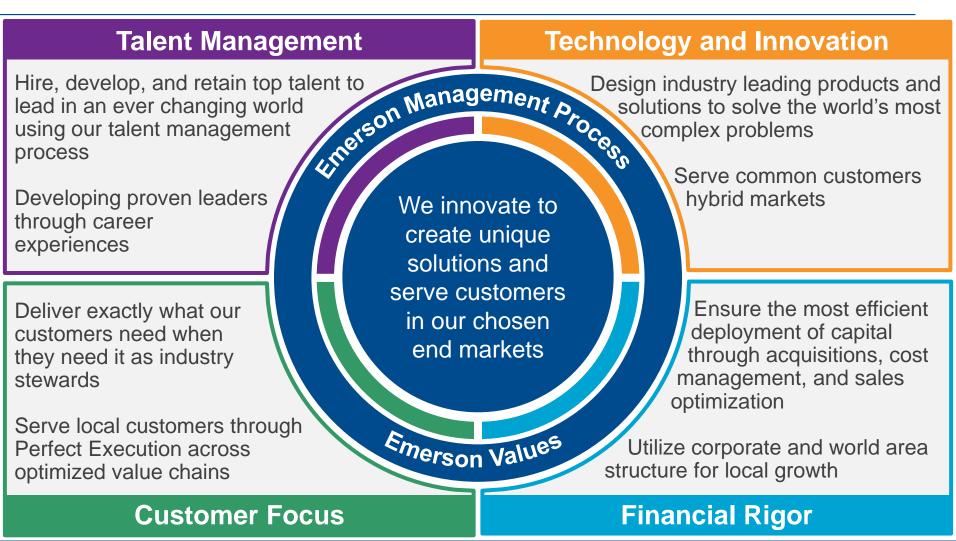


 Plantweb App Development and Acquisitions of Mynah, Prosys, and iSolutions bolster Operator Training, Alarm Management, and Advanced Control

Unique Investments and Innovations in Standalone Software, Simulation, the Plantweb Digital Ecosystem, and Cybersecurity Add Significantly to Emerson's Industry Expertise

-- We Will Continue To Invest in this Critical Strategy: Internal / Acquisition

Emerson's Two Platform Strategy A Well-Structured and Proven Value Creation Process



We Leverage a Common Foundational Process to Deliver Value for Our Shareholders and Drive Progress in the Automation and Commercial & Residential Markets

Emerson's Two Platform Strategy Leverage Our Enterprise Infrastructure

Emerson

Businesses

Centralized, Scalable & Leveraged

- Infrastructure
- Cybersecurity
- "Plumbing"

Distributed & Specialized

- Customer Experience
- Applications
- Subject Matter **Expertise**

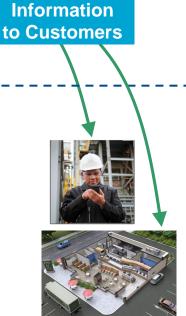


Data from

Devices







2019 February Investor Conference --

Fiscal 2019 Key Focus Areas

Key Fiscal 2019 Targets

- Achieve premium underlying sales* growth for both Emerson platforms: 4% 7%
- Continue to provide strong earnings with GAAP EPS reaching \$3.60 \$3.75 EPS in 2019 -- 4% 8% GAAP EPS growth
- Deliver another strong year of operating cash flow -- \$3.2B -- 17% of sales
- Dividend per share increase of 2¢ -- targeting larger increases in 2020 and 2021
- 1. Grow Underlying Sales* in Both **Platforms: 4% – 7%**
- Deliver positive underlying sales* growth within both platforms -- 4 7% EMR growth
- Provide above market underlying* growth for Automation Solutions: 5% 8% in 2019
- Continue strong, above market underlying* growth within Commercial & Residential Solutions – 4th year. Targeting another premium underlying* sales growth year: 3% – 5% in 2019

- 2. Continue Margin **Expansion Through** the Cycle
- Strong profit margin performance within both platforms is important to return to Emerson consolidated margin improvement -- Must leverage base company profitability at ~ 30% as sales growth continues and absorbs lower margins from acquisitions
- Continue to make strategic growth and technology investments while delivering 30% incremental margins
- Successfully integrate Intelligent Platforms, Tools & Test, Aventics -- and expand margins to deliver acquisition leverage goals
- 3. Grow Operating and Free Cash Flow to **Fund Growth and** Shareholder Returns
- Focus on cash flow management as Emerson continues to grow by generating \$3.2B in operating cash flow
- Invest ~\$650M of capital expenditures
- Maintain Free Cash Flow Conversion* >100%

In 2019, Our Organization Will be Aligned Towards Executing on These Strategic Priorities as We Benefit From Steady Growth in a Number of Our Core Markets Very Strong Focus on last 2 Years of Acquisitions and Delivering Value for Emerson 19

Emerson's 2019 Forecast --Stronger Sales, Earnings, and Cash Flow Growth

			% Change
	<u>2018</u>	2019E Forecast	<u> 2018 – 19E</u>
Sales (GAAP)	\$17.4B	~\$19.0B	7% – 10%
Underlying Growth*	8%	4% – 7%	
Gross Margin	42.9%	~43%	~10 bps
EBIT Margin*	16.2%	~17%	~80 bps
GAAP EPS	\$3.46	\$3.60 - \$3.75	4% – 8%
Dividends Per Share	\$1.94	\$1.96	+1%
Operating Cash Flow	\$2.9B	~\$3.2B	~10%
Cash Returned to Shareholders	\$2.2B	\$2.2B	

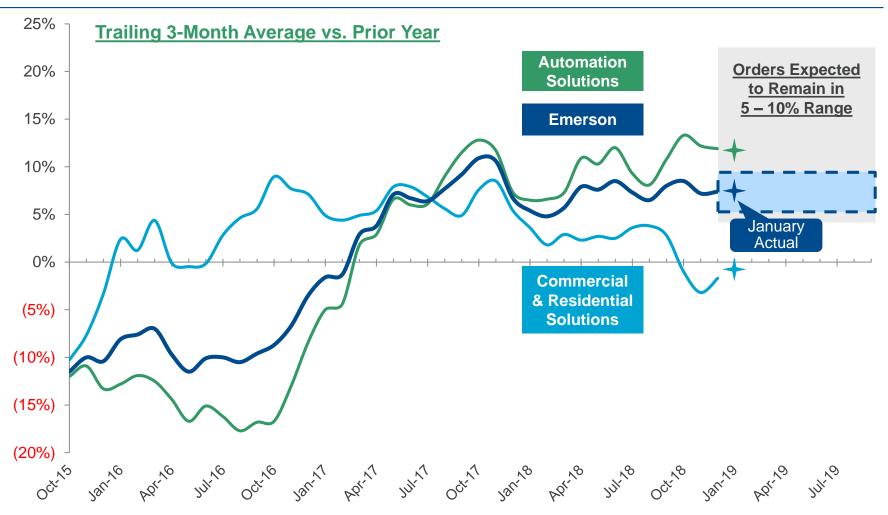
Global GFI: FY 2019	2018-19E
<u>Assumptions</u>	% Change
U.S.	3.5% - 4.5%
Canada	3.5% - 4.5%
Europe	1.5% – 2.5%
Middle East & Africa	4.0% - 5.0%
China	4.5% - 5.5%
Asia Pacific Excl. China	3.5% - 4.5%
Latin America	1.5% – 2.5%

Other 2019 key assumptions:

- Currency Headwinds ~\$0.3B
- Tax Rate: 24%-25%
- 2019 Share Repurchase: \$1B (Done)
- Closed acquisitions to date: ~\$230M full year ~\$500M
- Capital Expenditures: ~\$650M, ~3.4% of sales
- Oil price range: \$45–\$70

Underlying Order Trends

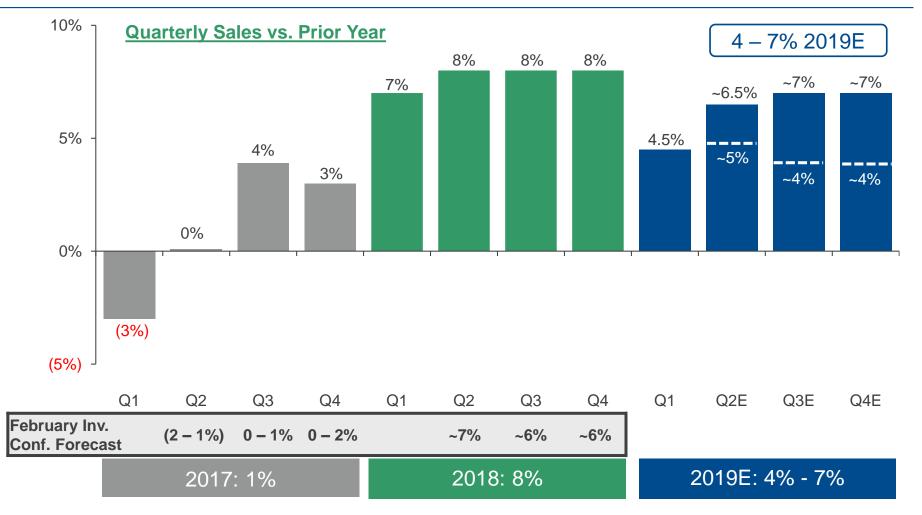
Solid 2019 Underlying Sales Growth Expected, Driven by Automation Solutions



Orders data includes the Valves & Controls acquisition results on a pro forma basis for all periods. The acquisition closed April 28, 2017.

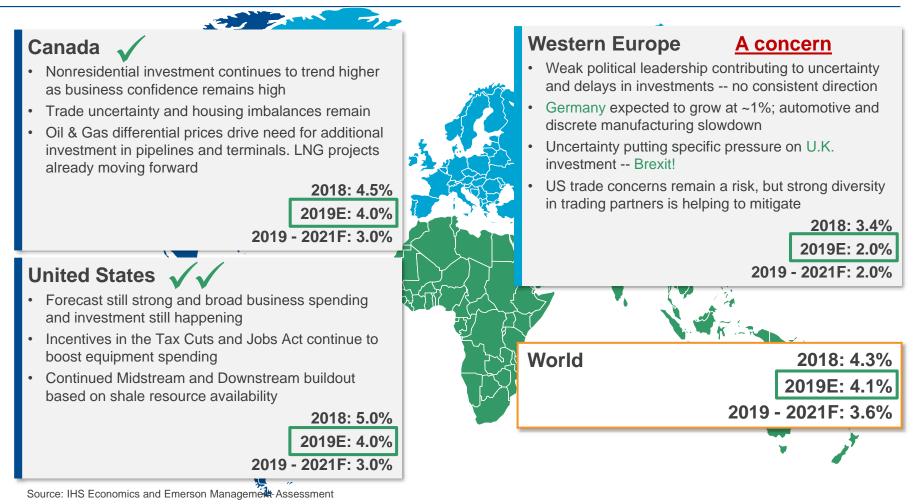
Quarterly Underlying Sales Growth* --

Maintaining Positive Momentum



Note: All data shows Emerson continuing operations

Global Macro Economics <u>2019 – 2021</u> <u>Mature Markets</u>: Gross Fixed Investment (GFI) Trends



Mature Markets GFI Expected to Grow 3.0% in 2019, Down From 3.9% in 2018 due to Western Europe Weakening -- We Expect ~4-6% Mature Market Underlying Sales

Growth in 2019 Driven by Solid USA Growth

Global Macro Economics <u>2019 – 2021</u> <u>Emerging Markets</u>: Gross Fixed Investment (GFI) Trends

Middle East & Africa

- Saudi Arabia's economy expected to strengthen from rising oil production quotas and oil prices
- Capital expenditures across region expected to improve, especially around energy and downstream
- Vertical integration investments continuing to create optionality and mitigate energy price volatility
 2018: 2.6%

2019E: 4.5%

2019 - 2021F: 3.9%

Latin America 🗸

- Mexico's spending is coming back as they sort out future government/investment policies
- Brazil, Chile, Peru mining investments providing solid growth opportunities
- USMCA ratification will solidify strength and confidence in Mexico -- need final approval in US Congress
 2018: 2.4%

2019E: 2.0%

2019 - 2021F: 2.0%

Source: IHS Economics and Emerson Management Assessment

Eastern Europe

A concern

- · Western Europe slowdown
- Russia's growth slowed to ~1% from ~3.5% in 2018, but fixed investment in energy continued
- GFI has suffered owing to reduced capacity utilization, availability of financing, high interest rates
 2018: 4.6%
 2019E: 2.0%

2019 - 2021F: 2.5%

China should be lower but okay

- · Tensions with US impacting overall export economy
- Steady investments continue in process/hybrid markets, residential and commercial expected to rebound in 2nd half
 2018: 4.9%

2019E: 5.0%

2019 - 2021F: 5.0%

Asia Pacific (Excluding China)

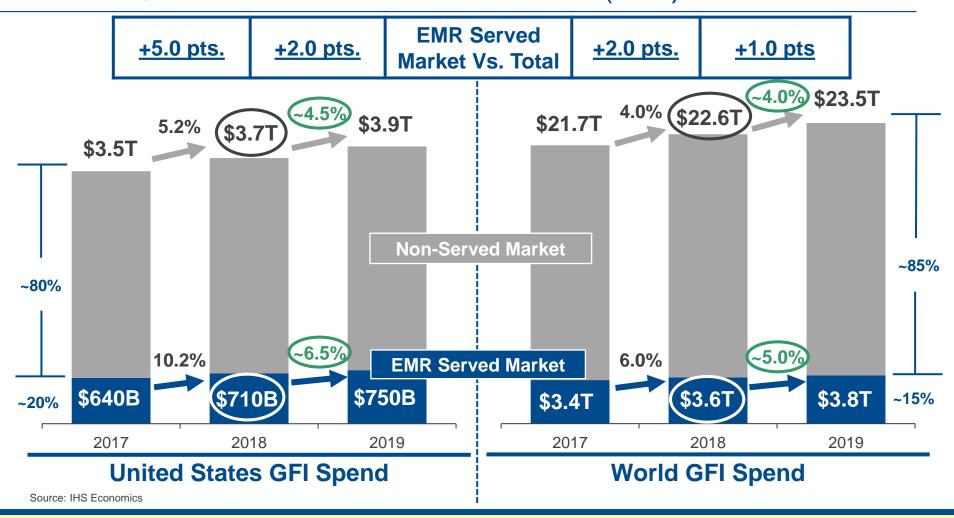
- India's GFI growth accelerating to ~7% with solid industrial / environmental investments
- Southeast Asia's GFI growth will finally exceed ~4.0%
- Australia mining showing decent investments

2018: 4.2% 2019E: 4.0%

2019 - 2021F: 4.0%

Emerging Markets GFI Expected to Grow at ~5.0% in 2019, Outgrowing Mature Markets We Expect to Deliver <u>~5-7% Underlying Sales Growth in Emerging Markets in 2019</u>

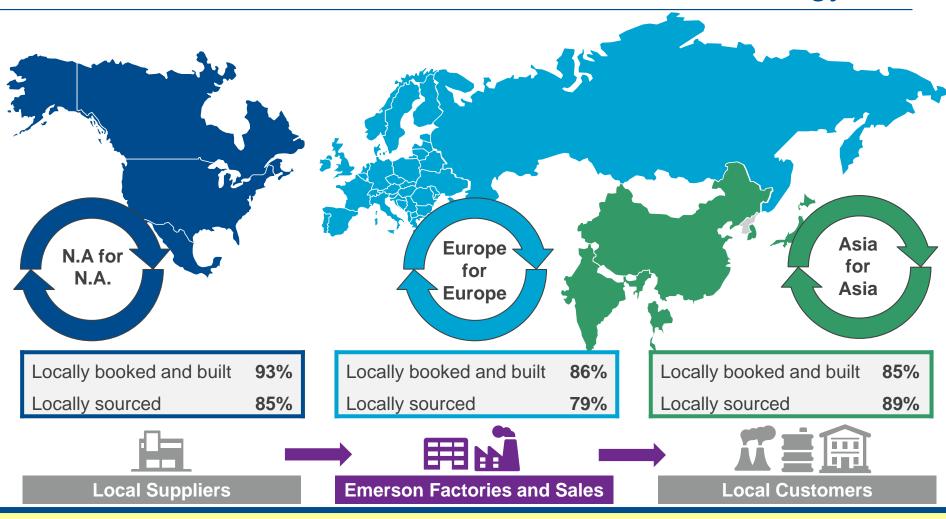
Emerson Continues to Participate in Large Vertical Markets That Will Grow Faster Than Total \$23T Gross Fixed Investment (GFI)



We Still Expect Growth to be Strong in Our Core Vertical Markets in 2019

Despite the Current Negative Global Headlines

Regionalization Initiatives Are Key to Emerson's Best Cost and Premium Growth Strategy



Emerson's Regionalized Footprint Supported by Localized Supply Chains, Sourcing Efforts, Manufacturing Locations, and Salesforces Requires Some Rebalancing After 3 Years of Significant Acquisitions

<u>Automation Solutions</u> Emerson's Top 25 Global Project Pursuit Competition

Content Intentionally Omitted

<u>Automation Solutions</u> Emerson's Top 25 Global Project Pursuit Competition

Content Intentionally Omitted

Commercial & Residential Solutions Uniquely Meeting Customer Needs

Equipment working

seamlessly together

Cold Chain



Emerson Provides:

- ✓ Compression
- ✓ Controls
- Monitoring
- ++ ✓ Industry Expertise
- ++ ✓ Project Management
- **++** ✓ Project Delivery

Residential Comfort in China



Emerson Provides:

- ✓ Compression
- ✓ Control Electronics

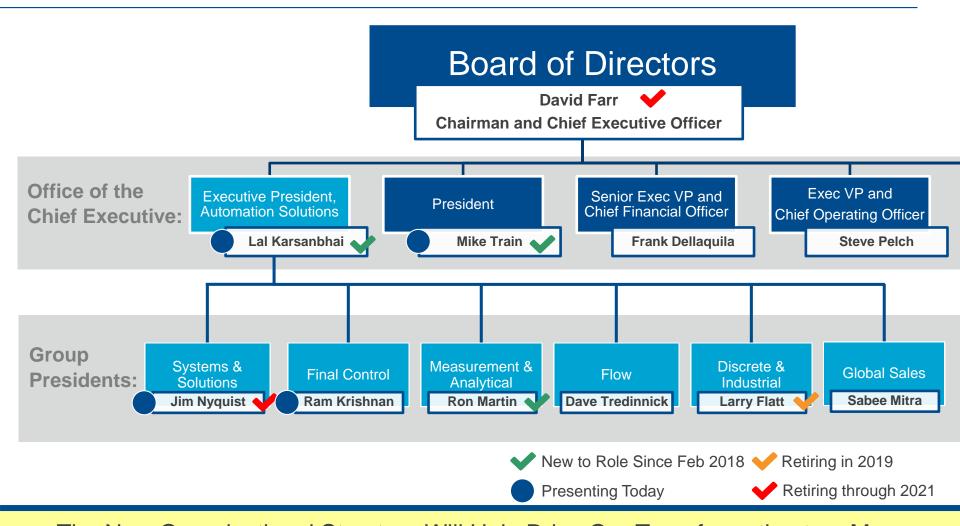
Optimized
System
Performance

- **++** ✓ Systems Integration
- ++√ Focused End User Channel
- **++** ✓ Local Application and Expertise

Commercial & Residential Solutions Unique Expertise in This Broad Global Market

Content Intentionally Omitted

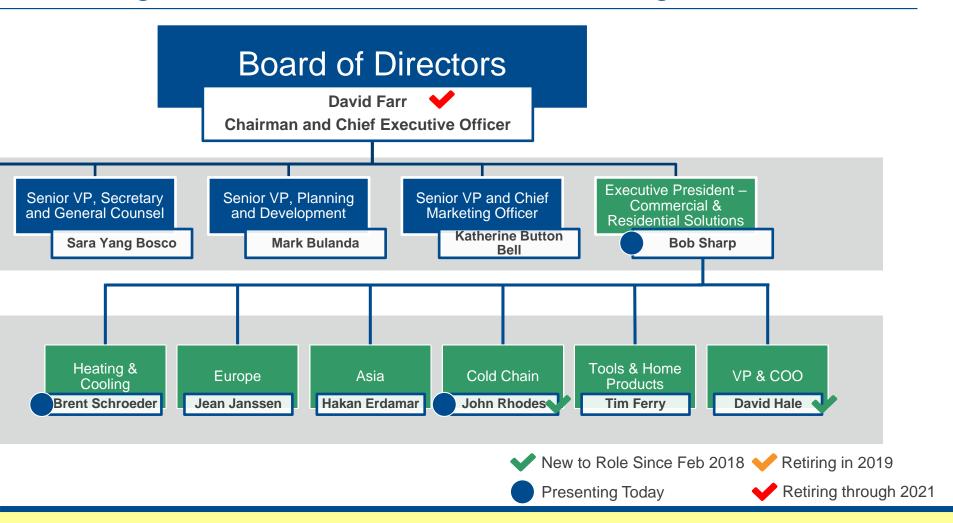
Organization Update -- Changes Will Continue to Unfold Through 2021



The New Organizational Structure Will Help Drive Our Transformation to a More Focused and Growth-Oriented Company...

Facilitating an Orderly Transition to the Next Chairman and CEO

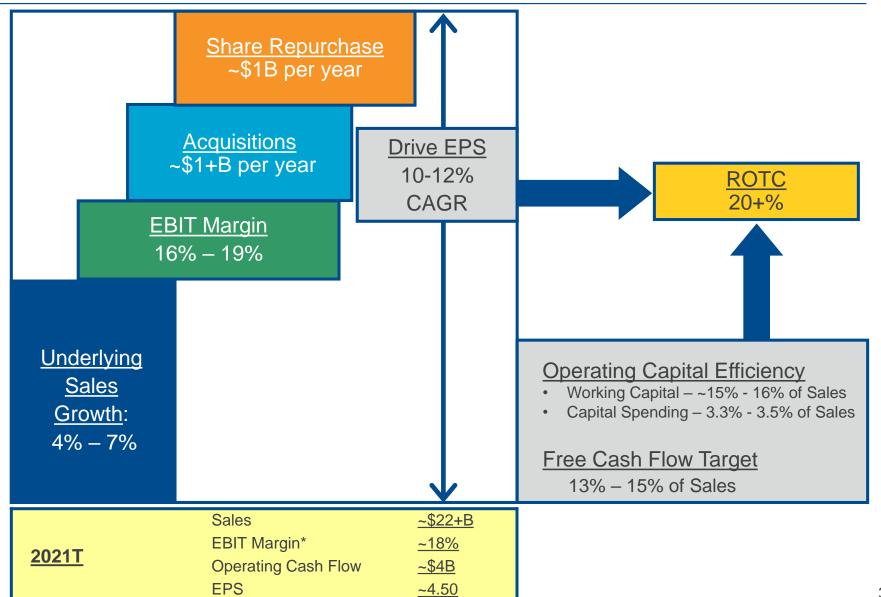
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Emerson's 2018 - 2021 Shareholder Value Creation Model Should be a Strong Outperformance Growth Period



Emerson's 2018-2021 Financial Plan Key Messages

Economic Conditions

- Strong underlying markets -- key / critical global economies aligned for growth
 - Automation Solutions maintaining strong momentum in the growth cycle
 - Commercial & Residential Solutions sustaining above market growth

Margins

- Underlying platform margin targets consistent through 2021 -integrated acquisitions with much lower margins
 - Automation Solutions: 17 19%
 - Commercial & Residential Solutions: 23 24%

Operating Cash Flow and EPS

- Continued strong cash conversion at ~110%+
- On path to 2021 \$4.50 EPS

Capital Expenditures

Average of ~3.3% - 3.5% of sales through 2021

Acquisitions

 Significant capacity for more in our focus areas if strategic assets become available – <u>ample flexibility for additional spend</u>

 We will continue to evaluate portfolio for divestiture opportunities to maximize value for <u>all shareholders</u>

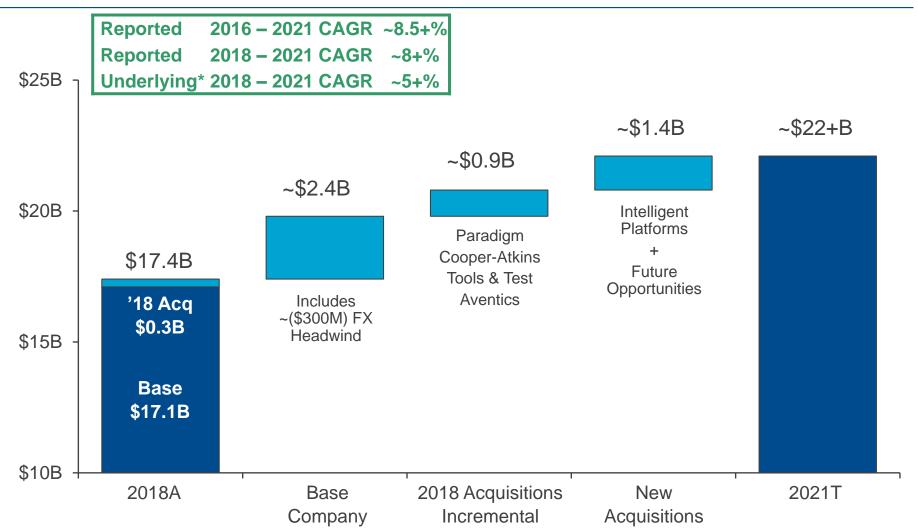
Share Repurchases

\$1B / year through 2021 – <u>highly flexible balance sheet</u>

Dividends

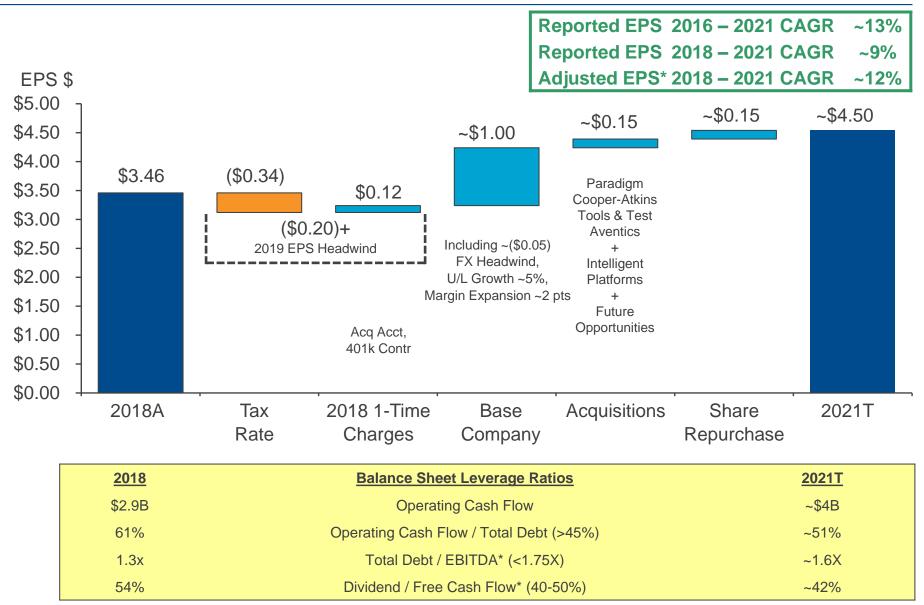
Plan to increase dividend greater than current pace in 2020, evaluating timing throughout 2019

2018 Bridge to 2021T Sales

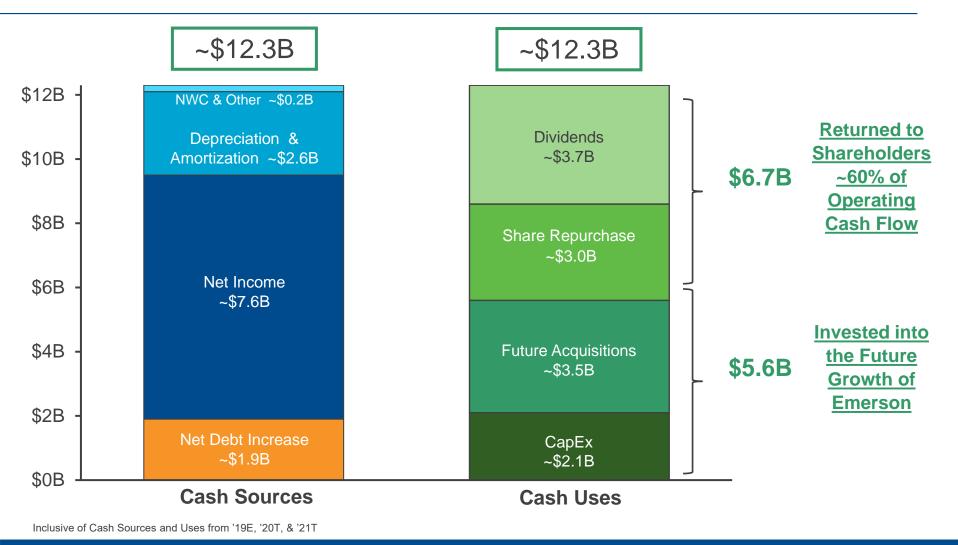


Upside Sales Case Presented at February 2018 Investor Conference Is Now Our Base 2018-2021 Financial Case

2018 Bridge to 2021T GAAP EPS

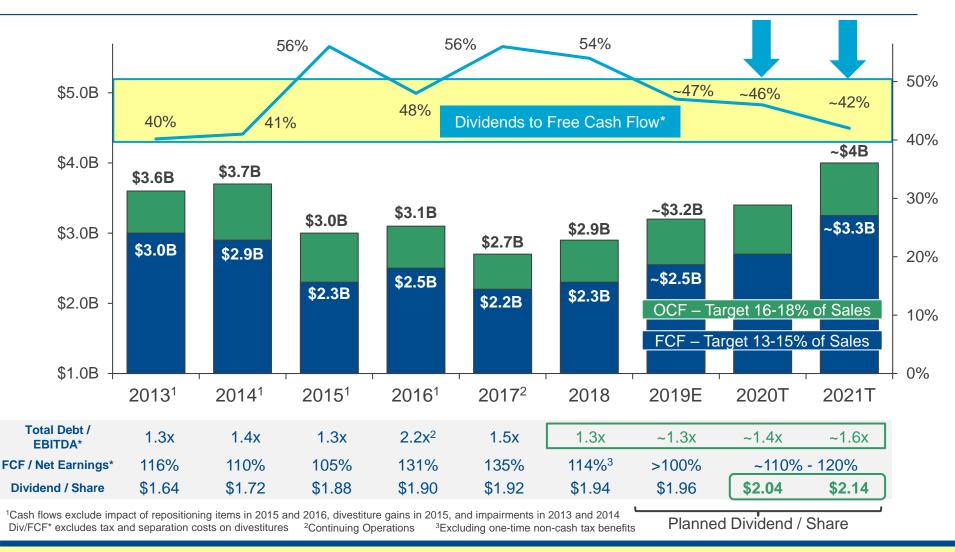


Cash Sources and Uses -- 2018 – 2021T

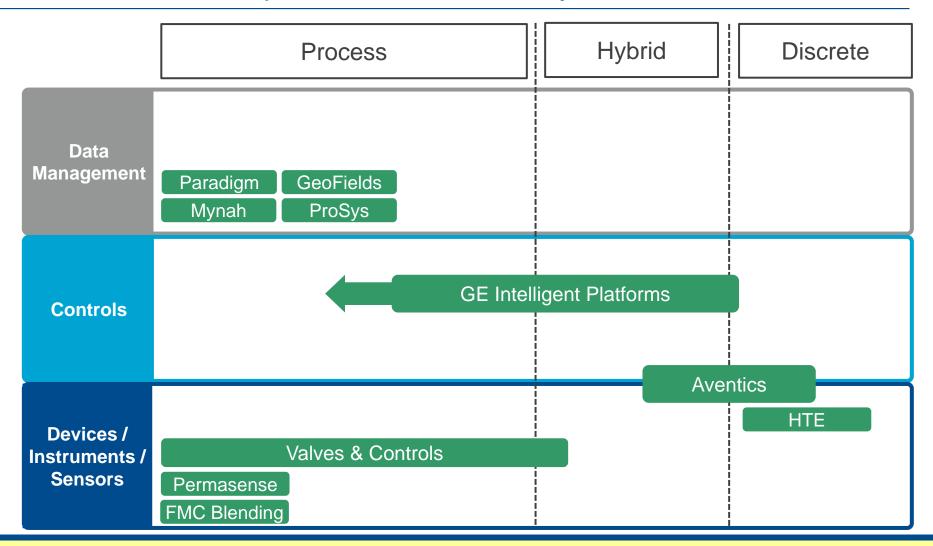


Capital Allocation Decisions Are Critical to Increase Long-Term Shareholder Value --We Have Continuously Targeted to Return ~50-60% of Cash Flow to Shareholders 37

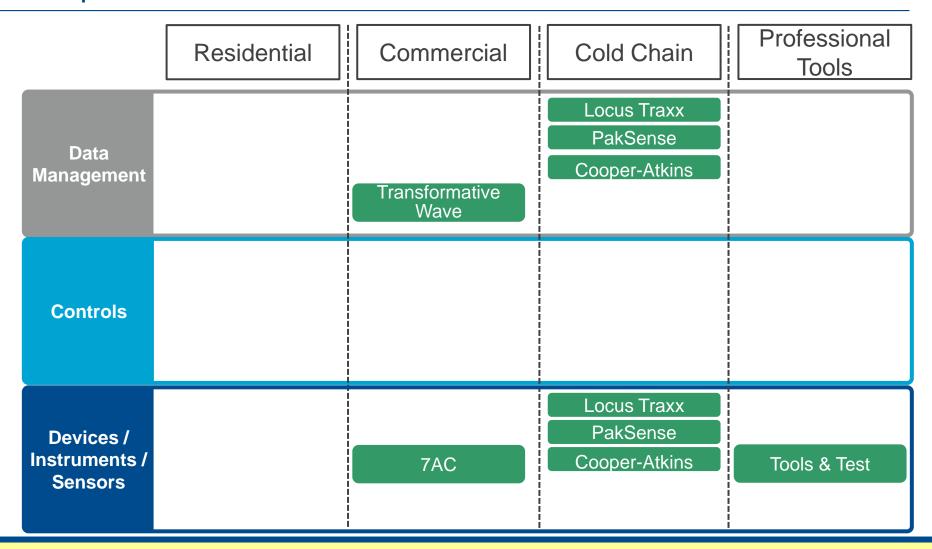
Operating Capital Efficiency Drives Significantly Higher Cash Flow and Returns for Shareholders



Automation Solutions Will Continue Its Strategy to Become a Complete Automation Player



Commercial & Residential Solutions Will Continue to Expand Its Solutions Portfolio



\$3.5B of Future Acquisition Spend For Emerson Will Expand Our Offerings As Strategic Assets Become Available

2019 February Investor Conference --

Fiscal 2019 Key Focus Areas

Key Fiscal 2019 Targets

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In 2019, Our Organization Will be Aligned Towards Executing on These Strategic Priorities as We Benefit From Steady Growth in a Number of Our Core Markets

<u>Premium Growth / Strong Cash Flow / Premium Returns</u>

Emerson's 2018 – 2021 Financial Forecast

GAAP	2018	2019E	2021T
Sales	\$17.4B	~\$19.0B	~\$22+B 🗸
Gross Margin	42.9%	~43%	~43+%
EBIT Margin*	16.2%	~17%	~18% 🗸
EPS Reported	\$3.46	\$3.60 - \$3.75	~\$4.50 🗸
Operating Cash Flow	\$2.9B	~\$3.2B	~\$4B 🗸
CapEx	\$617M	~\$650M	~\$750M
% of Sales	3.5%	~3.4%	~3.3%
Balance Sheet Leverage Ratios			
Operating Cash Flow / Total Debt	61%	~61%	~51%
Total Debt / EBITDA*	1.3x	~1.3x	~1.6x

By 2021, Our Target is to Reach ~43% GP Margin, ~18% EBIT Margin*, and ~\$4B Operating Cash Flow for Increased Internal / Acquisition Investment and to Drive Sales to ~\$22+B and EPS to ~\$4.50

Commercial & Residential Solutions Business Overview

Bob Sharp
Executive President



Commercial & Residential Solutions Business Overview

Bob Sharp
Executive President



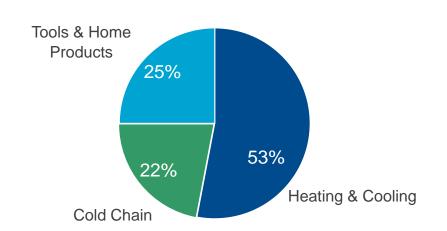
Commercial & Residential Solutions Key Messages

- Another strong year of sales in 2018, with 4% underlying growth* after 6% in 2017
- Commercial & Residential Solutions has a unique industry position and a key role as Industry Steward. This provides an important competitive advantage and is fundamental to us delivering sustained above market growth
- We have successfully defended our market leading position for decades. In addition, several major new programs provide the foundation for incremental above market growth and value creation.
- Across our businesses, we are moving up the value chain adding capabilities and partnering in new ways to bring integrated solutions to market
- We continue to develop and acquire a breadth of new technologies to expand solutions and engagement with end users across three key verticals – Residential Home Comfort, Commercial Building Efficiency & Cold Chain
- Our Tools & Home Products business is world class and centered around our customercentric product innovations and our best-in-class professional channel. The 2018 Tools & Test acquisition is a great fit and integration is running well ahead of plan.

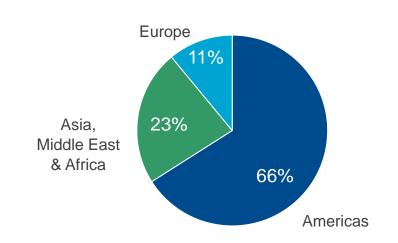
Commercial & Residential Solutions 2018 Summary

	<u>2017</u>	<u>2018</u>	2017 – 2018 <u>Change</u>
Sales	\$5.6B	\$6.0B	8%
Underlying*		4%	
EBIT	\$1.3B	\$1.4B	1%
% of Sales	24.2%	22.6%	(1.6) pts
ROTC	52%	44%	

2018 Sales by Market

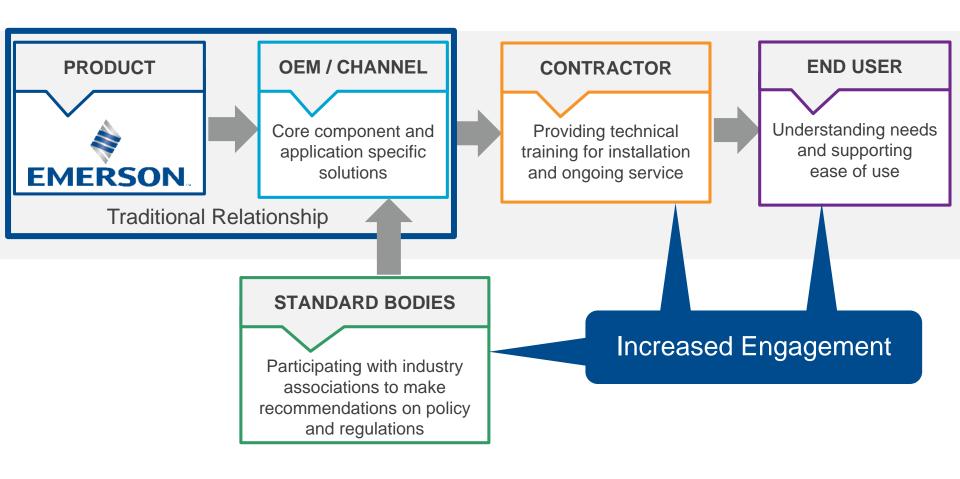


2018 Sales by Geography



Leading Presence in a \$43B Global Served Market Participation by Product Type

Our Domain Knowledge, Product Strength & Solutions Capability Enable Us to Serve As an **Industry Steward**



Commercial & Residential Solutions Global Footprint

United States & Canada

Sales **\$3.7B**

Employees 9,200

Manufacturing Locations 30

Sales & Service Locations 24

Europe

Sales \$0.6B

Employees 3,300

Manufacturing Locations 12

Sales & Service Locations 23

Asia

Sales **\$1.2B**

Employees 7,200

Manufacturing Locations 12

Sales & Service Locations 26

Latin America

Sales **\$0.3B**

Employees 7,700

Manufacturing Locations 10

Sales & Service Locations 7

Middle East & Africa

Sales **\$0.2B**

Employees 100

Manufacturing Locations 1

Sales & Service Locations 6

Global

2018 Sales **\$6.0B**

Employees 27,500

Manufacturing Locations 65

Sales & Service Locations 86

Favorable Business Dynamics and Local Scale Enable Premium Market Growth in all Regions

North America

- Maintaining strong positions across all core franchise product categories
- Leveraging food safety, new regulations and other trends
- Commercializing new sources of growth in several areas
- Continuing to scale solutions capability

Europe

- Solutions selling continues to drive separation from market
- Helping customers respond to strict EU regulations with revamped product offerings
- Driving the adoption of sustainable and flexible system architectures

Asia / Middle East & Africa

- Growing core products in the region with focus on refrigerants and variable speed
- Systems & Solutions selling approach is a differentiator in the marketplace
- Developing relationships with <u>fast growing</u> <u>food retail and foodservice customers</u>
- Well-positioned in district and industrial heating for China blue sky policies

Latin America

- <u>Leveraging core products</u> and diversifying offerings to expand served market
- Using solutions success cases to expand customer base and sales opportunity
- Driving geographic expansion of expanded cold chain portfolio

Served Market Verticals Showing Steady Growth with Attractive Business Dynamics

Colo	d Chain		Growth Drivers	
2019	2018-2021	Commercial Refrigeration	DOE & EPA regulations drive redesigns & food monitoring, Cold Chain expansion	
		Food Retail	Energy reduction, food quality, new formats	
		Transport	Truck & trailer, container recovery, Asia rail	
Res	idential	Residential AC	Solid fundamentals, weather conditions key	
2019	2018-2021	Home Improvements	Consumer confidence, equipment investment, improvement & repair projects	
		Residential Construction	New construction & private spending	
Com	mercial	Commercial AC	New efficiency standards	
2019	2018-2021	Global Heating	China coal to heat pump conversion	
		Non-Residential Construction	Non residential fixed investment & growth in strategic building segments	

Key Programs Aligned to Global Market Trends Drive Incremental Growth Above Market

Global Trends	Residential	Commercial	Cold Chain
Energy Efficiency	Modulation & Modulation & Controls, Controls Centrifugal		New Designs
Comfort & Air Quality	Indoor Air Quality, Dehumidification, Heat Pump Sensing & Mitigation		
Food Quality & Safety			Controls & ProAct, Cargo Solutions
Refrigerant Regulations	Low Global Warming Potential Refrigerants and New Compressor Designs		
Connectivity	Sensi WiFi Thermo Simple Buildin	Electronic Controls Remote Monitoring	
Food Waste Management	Food Disposer Adoption		Grind2Energy
e-Commerce	OneEmerson, Amazon, HomeDepot.com, Other Online Channels		
Emerging Market Middle Class	China Residential Heating	China District and Industrial Heating	Food Safety Focus

We Increasingly Combine Our Portfolio to Provide an Optimized, Application-Specific Offering

Integrated Solutions Are Optimized to Deliver the Highest Value to Our Customers

Cold Chain

Integrated Display Cases







Integral Display Cases

Residential Home

Residential Heating Solutions





Variable speed compressor/drive, flow controls & sensors, tailored control electronics

Commercial

Heat Pump Systems





Multiple Heat Pump Systems – Commercial Building / Hotel

Industrial

Modular Industrial Solutions





Industrial Systems

The Helix's Real World Laboratories Allow Us to Support Our End Users' Needs at the Ecosystem Level



Residential Connected Home

Fully functional two story 2,000 ft² home





Light Commercial Building

Multi zone 50 ton rooftop HVAC module





Food Service Operations

Fully functional licensed commercial kitchen





Supermarket Refrigeration

2,500 ft² supermarket and convenient store







550
Visits by Schools,
Community, and
Press



995 Group Sessions



Customer Discovery Sessions



Industry
Trade
Discovery



Govt. Labs
Discovery

The Helix Is Part of a **Global Innovation Infrastructure** Focused on **Integrated Solutions**



European Solutions Center Aachen, Germany



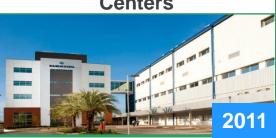
New Suzhou R&D Center Suzhou, China



- Ontario, Canada
- Sao Paulo, Brazil
- Mexico City, Mexico
- 2011
- 2016
- 2018

- Rayong, Thailand 2016
- Pune, India2017
- Dubai, UAE2018
- Busan, S. Korea 2018

Integrated Learning Centers



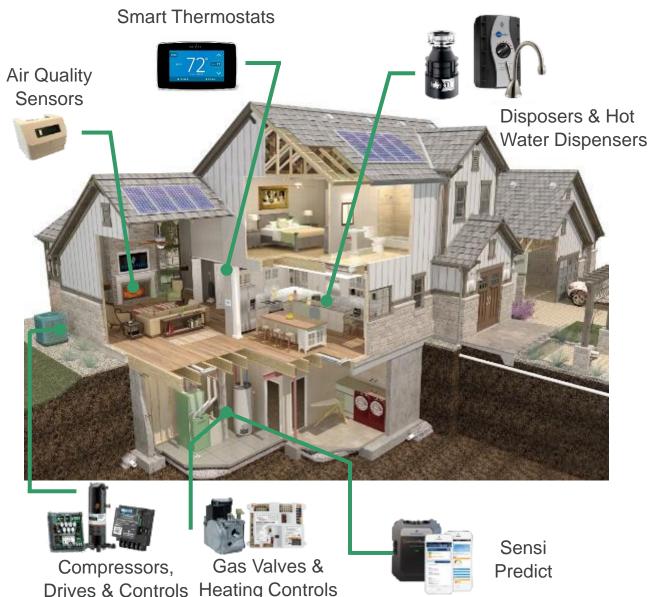
Georgia Tech Square Helix Atlanta, GA

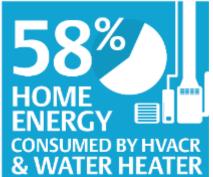


Customer Solutions Centers



Bringing Comfort and Convenience to Homes through Critical Infrastructure









Enabling High Performance Commercial Buildings









Helping Keep Food Fresh Throughout the Cold Chain

Food Quality and Safety
Solutions Across the Cold Chain











CONVENIENCE STORES



DRUG STORES



RESTAURANTS



INSTITUTIONS AND OTHER









Broad Portfolio Allows us to Serve Stakeholders at Each Node of the Cold Chain

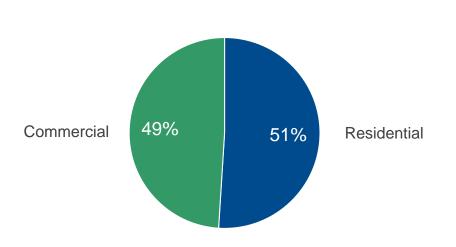
CoreRecent Addition	Harvest	Processing	Transport	Distribution	Food Retail & Foodservice
Refrigeration Systems		•			•
Industrial Refrigeration	•	•		•	
Controls			•	•	•
Loggers & Trackers	•	•	•		•
Temperature Management	•	•	•		•
ProAct Services			•	•	•
Project Management					•

Recent Acquisitions and New Offerings Have Greatly Expanded our Presence Across the Cold Chain and Have Elevated our Underlying Growth Performance

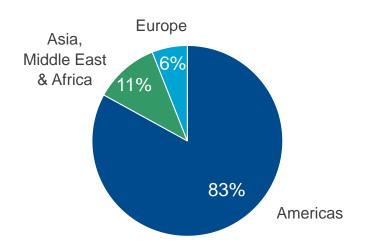
Tools & Home Products 2018 Summary & 2021 Target

Sales	2017 \$1.3B	2018 \$1.5B	2018 – 2021T 10 – 12% CAGR
Underlying*		5%	4 – 5% CAGR
Market Growth			3 – 4% CAGR
EBIT	\$0.4B	\$0.4B	
% of Sales	27%	25%	22 – 24% 2021T

2018 Sales by Market



2018 Sales by Geography



^ All Figures are Excluding Closetmaid

Expanded Served Market With Strong Positions Across All Major Categories and Emphasis on Pros

Tools & Test Overview

Company Profile

Headquarters: Rockford, IL

2017 Sales: \$470M **Employees**: 2,260

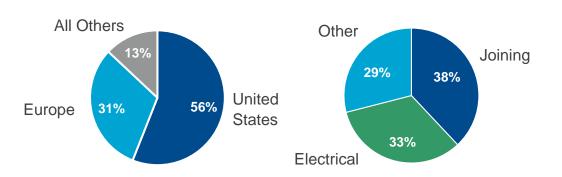
Global Footprint: 11 mfg. facilities across four countries

Description: Designs and manufactures tools and equipment for professionals in the electrical, construction, plumbing, utility, telecommunications, data communications, and maintenance industries

By Product:

Sales Mix

By Geography:



Products











Tools & Test Acquisition Rationale

Desirable **Target**

Strengthen **Position**

Value Creation

Market

<u>Highly Respected Portfolio Complements Emerson's</u>

- Iconic professional trade brands: Greenlee & Klauke
- Leading portfolio of Joining and Diagnostic technologies
- Consistent performance and cash flow generation, with room to improve

Complements Emerson's Leadership in Professional Tools Market

- Expands Emerson's addressable market ~\$2B
- Creates broadest tools offering for professional tradespeople
- Scales channel presence and customer footprint
- Improves geographic mix

Bolt-On Acquisition with Potential for Meaningful Value Creation

- Significant margin expansion reach ~20% EBIT excl. amortization costs
- Trade working capital and cash flow improvement
 - Original TWC guidance of \$25-50M now raised to >\$50M
 - Now expect \$>100M OPCF Contribution + proceeds from non-core asset sales
- 3 to 5% market growth with channel leverage and cross-selling synergies

Acquisition Combines Iconic Professional Tools Brands – Greenlee, Klauke, and RIDGID – to Create the Industry's Broadest Portfolio for Pros and Leading Positions Globally in Joining, Diagnostic, and Mapping Technologies

Tools & Test Integration New Professional Tools Organizational Structure

Integration Key Value Creation Opportunities

Tools & Home Products Continues to Innovate and Expand Portfolio to Serve Key Verticals

New Programs Further Expand Market Position

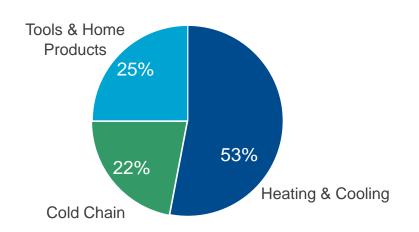
Emerson Will Continue to Expand Our Leadership in Residential, Commercial & Cold Chain Spaces

Key New Programs Throughout The Technology Pyramid Deliver Incremental Sales

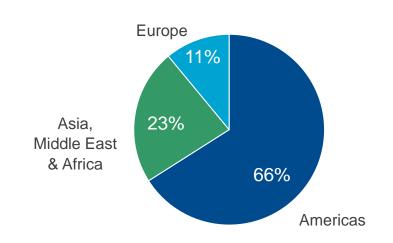
Commercial & Residential Solutions 2018 Summary, 2019 Guidance, and 2021 Target

	<u>2018</u>	<u>2019E</u>	<u>2018 – 2021T</u>
Sales	\$6.0B	8 – 10%	6 – 8% CAGR
Underlying*		3 – 5%	3 – 5% CAGR
EBIT	\$1.4B		
% of Sales	22.6%	22 – 23%	23 – 24% 2021T
ROTC	44%		

2018 Sales by Market

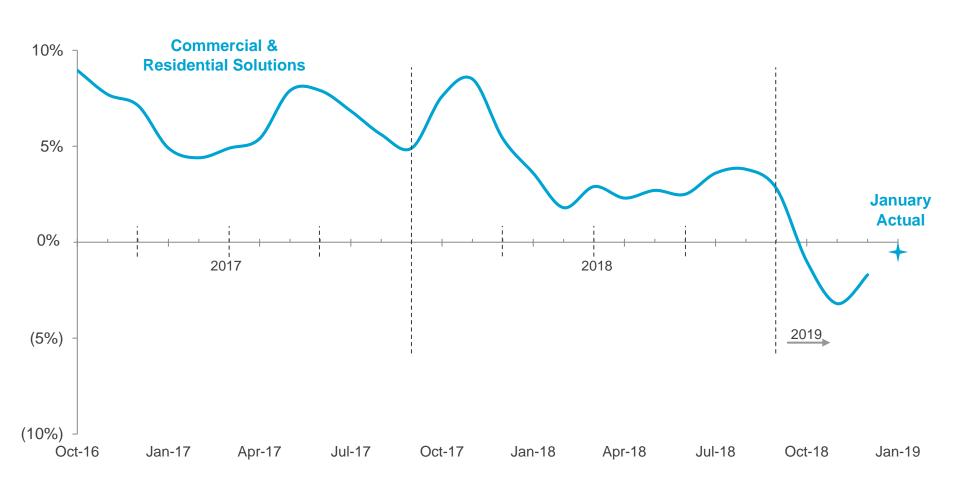


2018 Sales by Geography

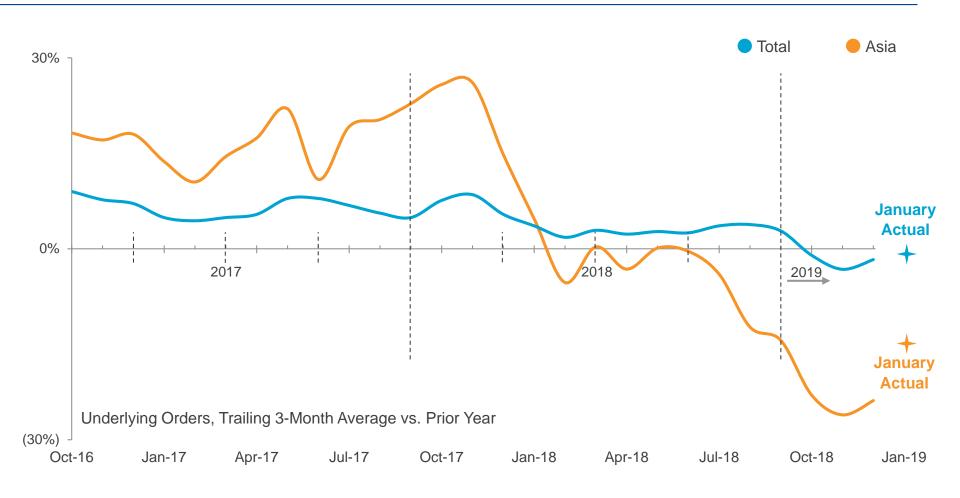


Positioned to Sustain Competitive Advantage and Deliver Premium Market Growth

Underlying Order Trends Trailing 3-Month Average vs. Prior Year



Commercial & Residential Solutions Asia Underlying Orders Coming off the Bottom



China Growth Has Remained Strong Outside of Heating & Cooling Correction

<u>China Cold Chain</u> Business Continues To Expand With Broader Solutions

Global Heating & Cooling Business Overview

Brent Schroeder Group President



Global Heating & Cooling Business Overview

Brent Schroeder Group President



Global Heating & Cooling Key Messages

- Emerson continues to hold strong position in North American & European markets by leveraging our unique position
- New product developments underway to win customer transitions with low Global Warming Potential (GWP) and modulation solutions in Europe, Asia and North America
- Drive mid to high single digit growth in Asia, leveraging scroll technology for heat pump and commercial segments
- Sensi platform & electronics allow for growth via connected products and expanded channels
- Several attractive segments for growth outside of our traditional compressor markets, including air quality, centrifugal compressors, liquid desiccant technology, electronics and monitoring solutions

Global Heating & Cooling 2018 Summary & 2021 Target

	<u>2017</u>	<u>2018</u>	<u>2018 – 2021T</u>
Sales	~\$3.1B	~\$3.2B	2 – 4% CAGR
Underlying*		3%	2 – 4% CAGR
Market Growth			2 – 3% CAGR

Global Heating & Cooling Growth Drivers and Business Dynamics



- Industry preparing for next round of efficiency standards and refrigerant regulations
- Efficiency standards driving modulation technology growth
- Integrated systems and connectivity
- Thermostat market shifting to Wi-Fi and B2C channel
- Increasing focus on ventilation and air quality



- OEMs redesigning systems to meet 2021 EcoDesign efficiency & fluorinated gas (F-gas) targets
- Regulations creating opportunities for sensing technology & electronics
- Variable Speed becoming leading technology in residential heating markets



- Economic slow down in China driven by trade uncertainty, tightening credit and slowdown in real estate sector
- China government push for clean air anticipated to continue, but investment deferred due to economic conditions
- Variable speed adoption and next gen refrigerants are driving upcoming wave of growth

Emerson is Well Positioned to Benefit from Macro Trends

Market Driver

Key Regulations & Enablers

Notable Statistics



Efficiency & Refrigerants

- >
- Efficiency and refrigerant regulations
- Rising energy costs
- Utility rebates and incentives



Comfort & Health

- >
- Ventilation standards
- Health conscious customers
- Asia's growing middle class



Urbanization

- >
- Commercial construction
- LEED building trends



- Increased equipment connectivity
- Improved sensor technology & cost
- Energy optimization

8%

AMOUNT OF TOTAL
US ENERGY USED BY
AC SYSTEMS

90%

AMOUNT OF TIME SPENT INDOORS

58%

AMOUNT OF PEOPLE LIVING IN URBAN AREAS BY 2025

5X

INCREASE IN NUMBER
OF CONNECTED
DEVICES BY 2025

2023 Regulations in North America Create Opportunities for Emerson

Energy Efficiency

Content Intentionally Omitted

- 2023 Department of Energy (DOE) efficiency regulations
- Minimum residential efficiency levels increase
 1 SEER
- Commercial systems moving to EL3
- More stringent system testing required
- System variability now critical attribute
- Record demand for lab testing capacity

Refrigerant Regulations

- US lacks federal mandate due to Kigali Amendment uncertainty
- Significant state-by-state activity led by CARB
- Low-GWP refrigerants are slightly flammable and require new technologies
- Potential for multiple refrigerants
- Timing aligns with 2023 Efficiency Regulations
- Emerson is well positioned to lead through this transition

Unprecedented Amount of Product Development To Support OEM's Efficiency and Refrigerant Requirements

Emerson Is Well Positioned To Support The Industry Through The Next Regulation Cycle

Emerson Will Win Through The Cycle By Being The Best Applied Cost Solution

2023 Department of Energy Rooftop Minimums and Low-GWP Regulations Driving Commercial Redesigns

Emerson Will Win Through The Cycle By Being The Best Applied Cost Solution

We Are Strengthening Our Core and Moving Up The Pyramid To Reach Adjacent Spaces



System Controls

Devices



1ø Drives

Multiples

Thermostats



3ø Drives

- through integrated solutions
 - Continuing optimization of scroll technology
 - Expanding the compression portfolio
 - Adding liquid desiccant

Residential

Commercial

Expanding Emerson's HVAC Addressable Market is a Key Strategic Priority

Sensi Is Well Positioned in Connected Home HVAC and Expanding Into Commercial Adjacencies

Sensi Thermostats

- Well Positioned with leading retailers
- Energy Star approved for Utility Rebates
- Garnering Top Ratings and Reviews
- Integrated With Amazon Alexa, Google Assistant, Apple Homekit & Wink

Sensi Multiple Thermostat Manager













Best Overall Smart Thermostat 2018





- Multi-User Controls with keypad lockout functionality
- Solution Value includes Sensi thermostats and software subscription





Best Value Smart Thermostat 2018



Sensi Platform Extends To Contractor Productivity and Indoor Air Quality

Oil-Free Centrifugal Technology Expands Commercial AC Offering and Opportunity

Expanding into Fast Growing Air Management Space With Foundational Investment in Liquid Desiccants

Global Heating & Cooling 2018 Summary & 2021 Target

	<u>2017</u>	<u>2018</u>	<u>2018 – 2021T</u>
Sales	~\$3.1B	~\$3.2B	2 – 4% CAGR
Underlying*		3%	2 – 4% CAGR
Market Growth			2 – 3% CAGR

Projecting Solid and Balanced Growth Across the Global HVAC Segments

Global Cold Chain Business Overview

John Rhodes Group President



Global Cold Chain Business Overview

John Rhodes Group President



Global Cold Chain Key Messages

- Multiple trends are supporting growth in the ~\$8B cold chain solutions and services market over the coming decade
- We have realigned our ~\$1.3B Global Cold Chain business and investment priorities to serve targeted end markets and are poised to grow to ~\$1.6B by 2021 driving 1+pts. premium growth for Commercial & Residential Solutions
- Our vision of the cold chain is to leverage our installed base, domain knowledge and global footprint to provide our customers solutions to optimize their assets and operations – we are uniquely positioned to lead this journey to higher value solutions
- Across the cold chain, we are targeting key market verticals where we see industry dynamics driving adoption of integrated solutions, and where our complete offering meets customer needs

Global Cold Chain 2018 Summary & 2021 Target

	<u>2017</u>	<u>2018</u>	<u>2018 – 2021T</u>
Sales	~\$1.2B	~\$1.3B	5 – 7% CAGR
Underlying*		5%	5 – 7% CAGR
Market Growth			3 – 5% CAGR

Global Cold Chain Growth Drivers and Business Dynamics



- Online and small format stores growing with focus on fresh food
- Food safety regulations driving increased attention on monitoring
- Efficiency and refrigerant regulations drive significant change
- Walmart reducing builds, online retailer growth (Amazon) & store architecture shifts (Lidl & Dollar stores)



- Sustainability main driver in equipment selection and architecture
- Continued architecture change from centralized to de-centralized in retail refrigeration
- CO2 centralized systems will continue as technology option in the midterm for large retail applications
- Increasing need for R290 solutions for display case applications



- Food safety continues to be a growth driver across Asia & Middle East
- Continued build out of refrigeration supply chain infrastructure
- Rapid expansion of retail across Asia
- Economic slow down in China

Multiple Trends Are Supporting Growth of the Cold Chain Market Segments

Growth Driver

Key Regulations & Enablers

Notable Statistics



Consumer Preferences



- Consumer demand for fresh food, ready-made food & convenient shopping
- Health conscious consumers



Macro-trends



- Disruptive food safety, energy & environmental regulations
- Globalization of supply chains



Brand Equity



- Food quality & sustainability as a differentiator
- Brand risks due to food borne illness



Advancements in Technology

- Inc
- Increased equipment connectivity
 - Improved sensor technology & cost
 - Data availability via the cloud

48M
CONTRACT FOOD
BORNE ILLNESS

84% BLAME FOOD RETAILERS

\$1.9M

FOR ONE OUTBREAK

\$1T/Year
SPENT AT SMALL
FORMAT STORES

Across the Cold Chain, We Are Supporting Customers to Improve Operations, Performance, and Food Safety

Customer Pain Points

Many steps

Single view into my operations

Multiple players

Intermediaries

Transportation

Consistent temperature control

Regulatory requirements

Complexity

Handling



Harvest

Processing

Transportation

Distribution

Food Retail Foodservice

Connected Solutions Drive Value in:

Assets & Operations	Food Quality
More energy efficient operations	Shelf life strategies
Lower maintenance costsPredictive equipment alerts / uptime	More robust supplyEnd-to-end food quality
Manpower optimizationRegulatory compliance	Shrink reductionRegulation compliance

Cold Chain Customers Require a Trusted Partner that Understands Industry Complexities and the Technology Required to Deliver Food Quality

Broad Portfolio Allows us to Serve Stakeholders at Each Node of the Cold Chain

CoreRecent Addition	Harvest	Processing	Transport	Distribution	Food Retail & Foodservice
Refrigeration Systems	•	•			•
Industrial Refrigeration	•	•		•	
Controls	•	•	•		•
Loggers & Trackers					
Temperature Management	•	•	•		•
ProAct Services			•		•
Project Management					•

Recent Acquisitions and New Offerings Have Greatly Expanded our Presence Across the Cold Chain and Have Elevated our Underlying Growth Performance

We Have Built an End-to-End Monitoring Presence Across the Cold Chain Monitoring Industry

Data Driven Solutions Drive Customer Value

We Have World Class Product Capabilities at Each Level of the Technology Pyramid

Data <u>Ma</u>nagement

PROACT Vertical-Specific Optimization Services Food Monitoring Cargo Oversight Transformative Wave Grind2Energy

- Leveraging domain knowledge to provide enhanced solutions to end users
- Developing internally and evaluating external partnership opportunities

Controls and Electronics









Electronic Controls

- Developing next generation controls and electronics
- Delivering additional value through integrated solutions

Devices



Reciprocating Compressors







Temperature Monitoring Devices





Valves

- Expanding the compression portfolio
- Enabling Systems & Solutions for asset optimization

Strong Representation in Each Segment Across the Cold Chain

We Are Expanding Our Presence Across Foodservice with Integrated Business Solutions















PROACT



Food Quality, Energy Efficiency, and Regulations Driving Foodservice Growth

Expanding Our Presence Across Food Retail with Integrated Business Solutions













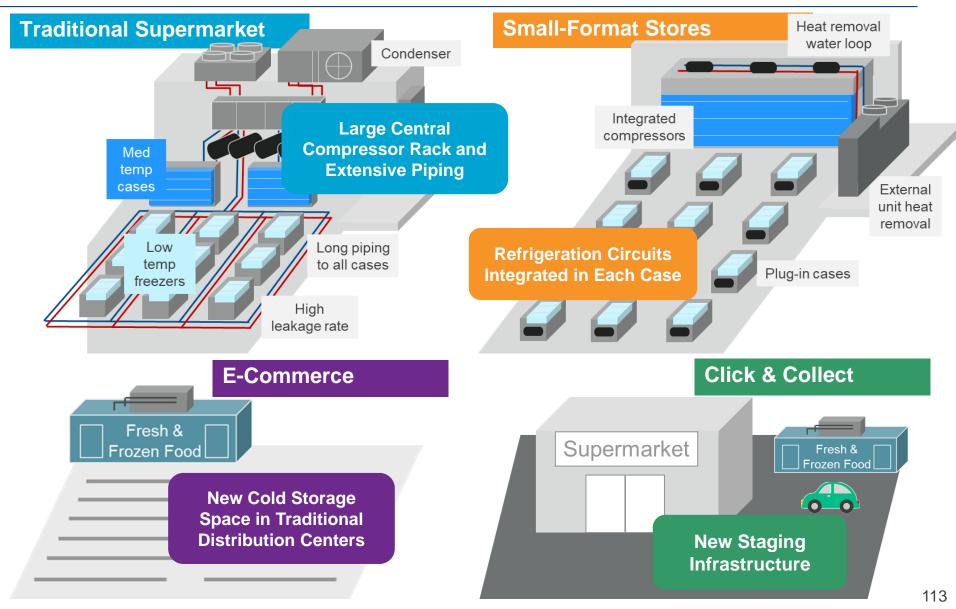






We Are Well Positioned to Address Changing Customer Needs in Food Retail

Changing Consumer Habits Drive New Refrigeration Architectures



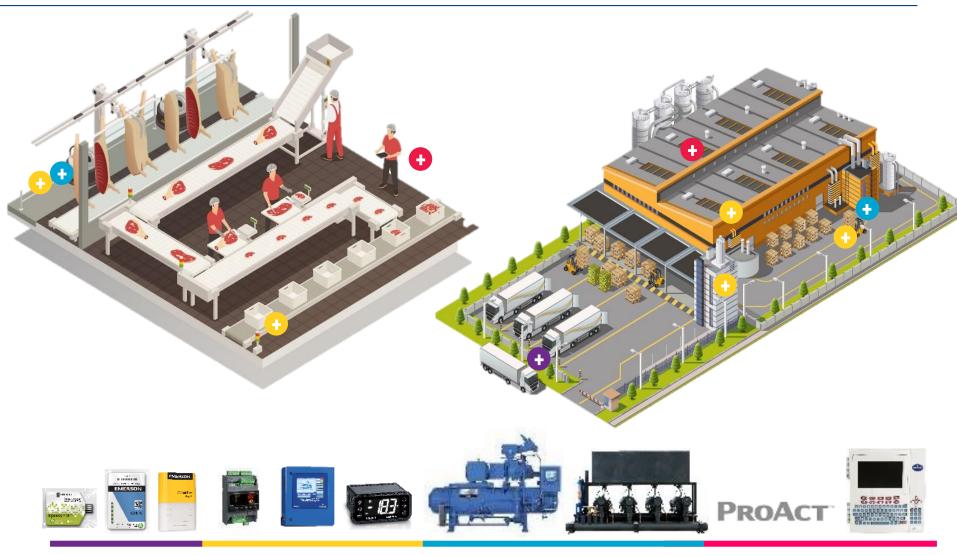
Our Scalable Cold Chain Platform Helping Both OEMs and End Users Navigate New Regulations and Changes

Expertise Areas Provide a Competitive Advantage to Address Transport Across the Cold Chain



We Are Leveraging Our Reefer Installed Base to Bring Integrated Solutions to the Transport Space

We Are Expanding Our Presence Across Processing & Distribution with Integrated Business Solutions



New Product Introductions Driving Above Market Growth in Process & Distribution Industries

Global Cold Chain 2018 Summary & 2021 Target

	<u>2017</u>	<u>2018</u>	<u>2018 – 2021T</u>
Sales	~\$1.2B	~\$1.3B	5 – 7% CAGR
Underlying*		5%	5 – 7% CAGR
Market Growth			3 – 5% CAGR

Cold Chain Global Plan Delivers Above Market Growth Through Product and Service Solutions

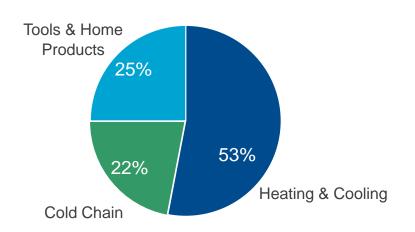
Commercial & Residential Solutions Key Messages

- Another strong year of sales in 2018, with 4% underlying growth* after 6% in 2017
- Commercial & Residential Solutions has a unique industry position and a key role as Industry Steward. This provides an important competitive advantage and is fundamental to us delivering sustained above market growth
- We have successfully defended our market leading position for decades. In addition, several major new programs provide the foundation for incremental above market growth and value creation.
- Across our businesses, we are moving up the value chain adding capabilities and partnering in new ways to bring integrated solutions to market
- We continue to develop and acquire a breadth of new technologies to expand solutions and engagement with end users across three key verticals – Residential Home Comfort, Commercial Building Efficiency & Cold Chain
- Our Tools & Home Products business is world class and centered around our customercentric product innovations and our best-in-class professional channel. The 2018 Tools & Test acquisition is a great fit and integration is running well ahead of plan.

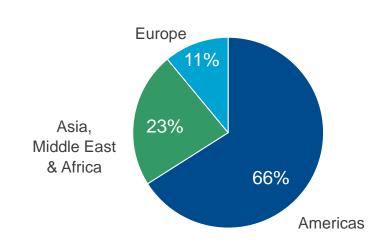
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Underlying*		3 – 5%	3 – 5% CAGR
EBIT	\$1.4B		
% of Sales	22.6%	22 – 23%	23 – 24% 2021T
ROTC	44%		

2018 Sales by Market



2018 Sales by Geography



Automation Solutions

Lal Karsanbhai
Executive President



Automation Solutions

Lal Karsanbhai
Executive President



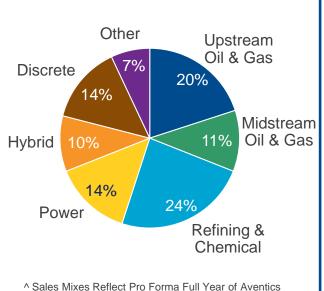
Automation Solutions Key Messages

- Automation Solutions performed very well in 2018 with strong margin growth in the base business and strategic portfolio expansion
- Large capital investment wave is here and Automation Solutions will gain participation in greenfield projects
- Lifecycle Management programs drive KOB3 to >50% sales through the cycle and penetrate competitors' installed base
- Systems and Software advancements create new levels of value for customers, grow our served market, and diversify industry mix
- Final Control strategy and execution is key to our growth plan and one of our most significant value creation levers
- Emerson is delivering on the promise of digital transformation with expertise and proven solutions to improve safety, efficiency, and uptime

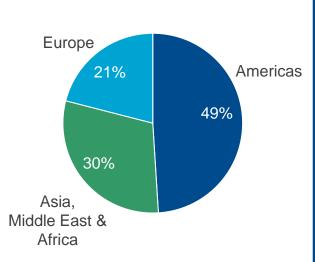
Automation Solutions 2018 Summary

	2017	2018	2017 – 2018 <u>Change</u>
Sales Underlying*	\$9.4B	\$11.4B 10%	21%
EBIT	\$1.5B	\$1.9B	24%
% of Sales	16.2%	16.5%	30 bps
ROTC	14%	18%	

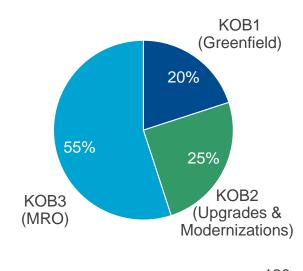
2018 Sales by Market



2018 Sales by Geography



2018 Sales by KOB



We Provide the Most Complete Portfolio of Products and Software in the \$214B Automation Market

Management

Control





Reservoir Modeling



Operations & Alarm Management



Advanced **Process** Control



Planning & Scheduling



Plant Asset Management



Control **Engineering**



Training & Simulation



Real-time **Optimization**



Energy Management



Asset Integrity Management

ENGINEERING & DESIGN

CONTROL SOFTWARE

PRODUCTION MANAGEMENT **ASSET RELIABILITY** & PERFORMANCE



PROCESS CONTROL & SAFETY SYSTEMS



WELLHEAD CONTROL







MODULAR AND MACHINE **CONTROL**



MACHINERY HEALTH



MEASUREMENT & FLOW





ANALYTICAL



SOLENOIDS & PNEUMATICS



FINAL CONTROL

Our World-class People Deliver the Solutions that Drive Value Creation for Customers and Emerson

58,000 Automation Solutions Employees

Pursuit Expertise

12,250+

Salespeople

100+
Industry

Consultants

Differentiated Portfolio

3,250+

Engineering & Development Resources

Proven Execution

5,150+

Project Engineering Resources

Lifecycle Support

5,100+

Lifecycle Services Resources

390+

Service Centers

Enabling Top Quartile Performance

Project Certainty

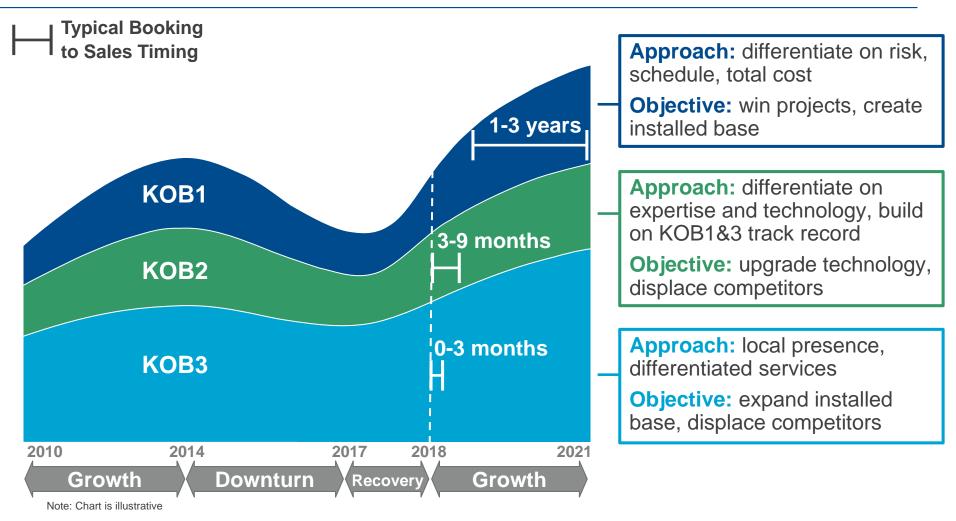
Operational Certainty

Emerson Is a Leader Across the Full Process Automation Spectrum

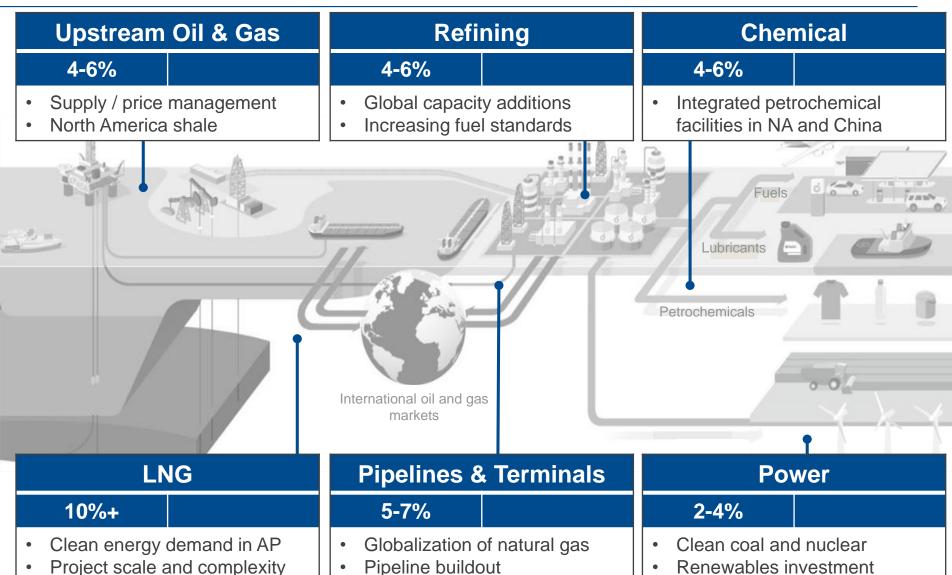
Emerson is the Only Company That Can Deliver and Support Complete Process Control Loop Automation

Driving KOB3 to >50% of Mix Through the Cycle and Penetrating Competitors' Installed Base

Each Kind of Business Plays a Vital Role in Growth and Margin Expansion



Process Market Conditions Are Strong, Connected by Globalization of Natural Gas



Hybrid Industries Continue to be Attractive for Growth and Diversification

Life Science

6-8%

- Personalized medicine
- Biosimilars and generics

Food & Beverage

4-6%

- Product customization
- Food safety and quality

Metals & Mining

2-4%

- Greenfield lithium production
- Remote, unmanned operations

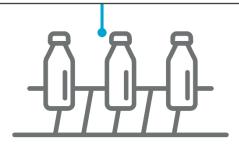


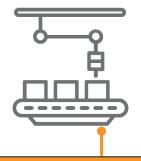


Packaging

5-7%

- Demand in emerging markets
- Co-bots, advanced automation





Industrial Machinery

4-6%

- Industry 4.0
- Increasing automation spend



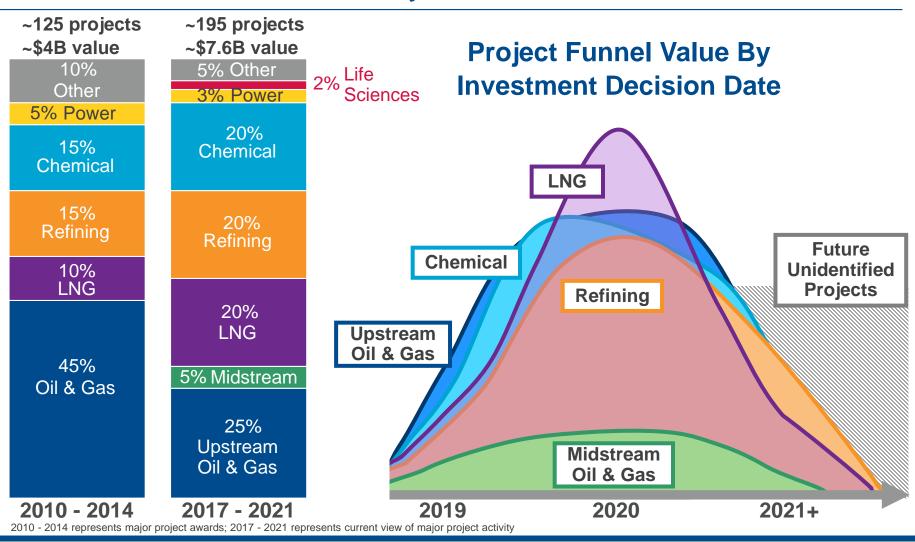


Automotive

0-2%

- Electric vehicle manufacturing
- Demand in emerging markets

Industry Mix of Current Investment Wave is Distinct From the Last Cycle



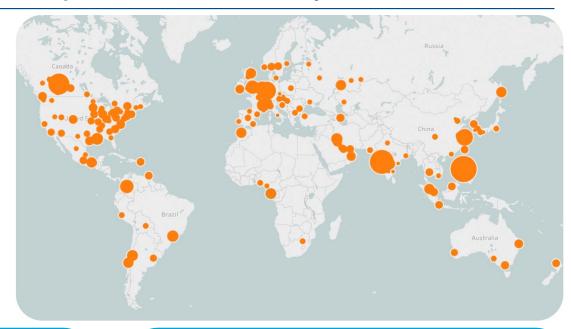
Large Project Funnel Continues to Grow -Orders and Commitments to Emerson Are Significant



Global Project Services Infrastructure, Expertise, and Innovative Execution Capabilities Are Key Differentiators

Global Project Resources

- 5,150+ project engineering
- 100+ locations
- Project manager certification
- Virtual collaboration



Execution Best Practices

- Main Automation Contractor
- Industry Centers of Excellence
- Reusable engineering libraries
- Standardized processes

Project Innovation

- 70+ Project Certainty enablers
- Virtual engineering and acceptance testing
- Automated data management
- Smart commissioning

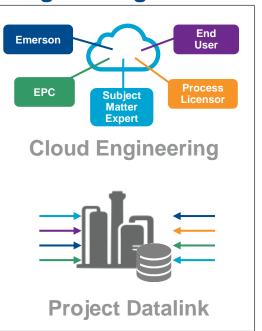
Leveraging Our Capabilities and Credibility to Win Next Wave of Capital Projects

Technology and Service Innovations Bring Confidence to Even the Most Complex Projects

Design



Engineering



Execution



Operator Training & Digital Twin



Auto Commissioning



Video Inspection

Unmatched Ability to Capture Capacity Additions Across the Liquified Natural Gas Value Chain





Systems Refining Project Experience Builds on Our Device and Final Control Leadership

Project Execution Innovations Supporting Growth in China & US Gulf Coast Petrochemicals



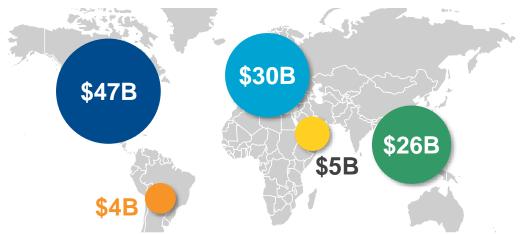


Unique Technology and Expertise Enabling Advances in <u>Life Sciences</u> Manufacturing

KOB1 Success Drives Higher Margin KOB3 Annuities at Customer Plants Across Served Industries

Industry-leading Global Service Coverage Is the Foundation of Serving and Expanding Our Installed Base

\$112B Global Installed Base



World Area	Service Engineers		Service Centers	
	Today	Planned	Today	Planned
North America	1,500	+700	54	+10
Europe	1,300	+250	99	+1
Asia	880	+500	32	+20
Middle East & Africa	215	+70	10	+5
Latin America	175	+80	17	+8
Total	4,070	+1,600	212	+44

Strategic Programs

Site Walkdowns



Shutdowns, Turnarounds, & Outages



Long-term Service Agreements



Connected Services



+\$250M growth in 2018

Digital Transformation Builds on Emerson's Installed Base of Field Devices and Control Systems



PLANTWEB

Expertise

to define the business case

- 100+ consultants
 combining industry,
 automation, operational,
 and digital expertise
- Top Quartile benchmarks
- Facilitated workshops

Roadmap

to start in focused high-impact areas, prove value, scale quickly

Workstreams for:

- Functional collaboration
- Technology selection
- Information architectures
- Execution plans
- ROI calculations

Scalable Platform

of sensors, analytics, and services

- 140+ proven solutions to known challenges
- 50+ Wireless sensors
- Embedded cybersecurity
- 120+ software and analytics applications
- Services to ensure results

Digital Transformation is Significant Part of the Automation Solutions Business



Pervasive Sensing

More insight to inform safe, reliable operations

Corrosion
Equipment Monitoring
Location Awareness





Reliability

Increase uptime and reduce maintenance cost

Plantweb Optics
Equipment Analytics
Machine Prediction





Consulting

Industry expertise with actionable solution architectures

Project Strategy IT / OT Collaboration Operational Strategy





Integrated Operations

Streamline processes to focus on exceptions and opportunities

Digital Twins
Connected Services
Reservoir Optimization



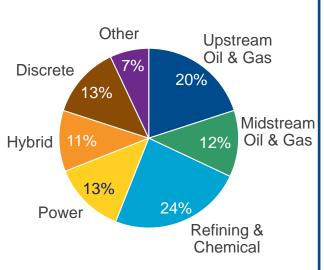
Automation Solutions Key Messages

- Automation Solutions performed very well in 2018 with strong margin growth in the base business and strategic portfolio expansion
- Large capital investment wave is here and Automation Solutions will gain participation in greenfield projects
- Lifecycle Management programs drive KOB3 to >50% sales through the cycle and penetrate competitors' installed base
- Systems and Software advancements create new levels of value for customers, grow our served market, and diversify industry mix
- Final Control strategy and execution is key to our growth plan and one of our most significant value creation levers
- Emerson is delivering on the promise of digital transformation with expertise and proven solutions to improve safety, efficiency, and uptime

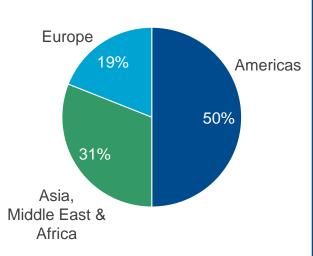
Automation Solutions 2018 Summary, 2019 Guidance & 2021 Target

	<u>2018</u>	<u>2019E</u>	<u>2018 – 2021T</u>
Sales	\$11.4B	7 – 10%	~\$15B 2021T w/ acquisitions
Underlying*		5 – 8%	5 – 8% CAGR
EBIT	\$1.9B		
% of Sales	16.5%	16 – 17%	17 – 19% 2021T
ROTC	18%		

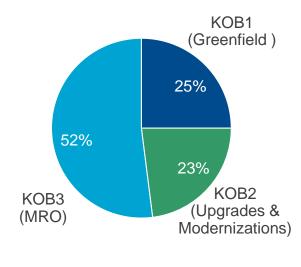
2021 Sales by Market



2021 Sales by Geography



2021 Sales by KOB



Systems & Solutions

Jim Nyquist Group President, Systems and Solutions



We Provide a Broad Portfolio of Products and Software in the Control and Software Market





Reservoir Modeling



Operations & Alarm Management



Advanced Process Control



Planning & Scheduling



Plant Asset Management



Control Engineering



Training & Simulation



Real-time Optimization



Energy Management



Asset Integrity Management

ENGINEERING & DESIGN

CONTROL SOFTWARE

PRODUCTION MANAGEMENT

ASSET RELIABILITY & PERFORMANCE

Control







WELLHEAD CONTROL





ODULAR AND MACHINE

MODULAR AND MACHINE CONTROL

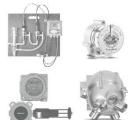


MACHINERY HEALTH

Field Devices



MEASUREMENT & FLOW



ANALYTICAL



SOLENOIDS & PNEUMATICS



FINAL CONTROL

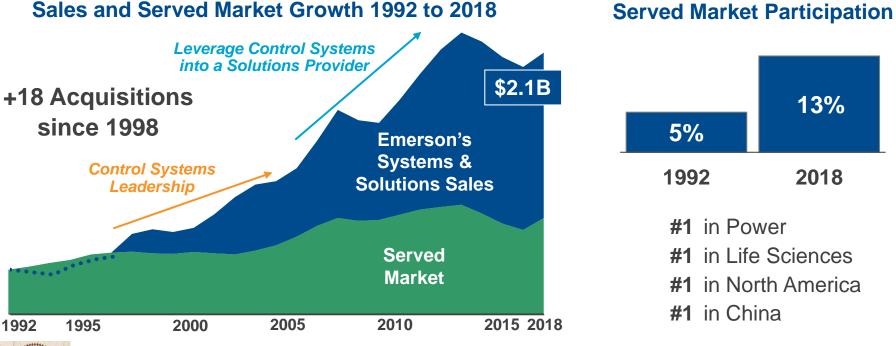
Systems & Solutions Key Messages

- Investments in Systems & Solutions will continue to deliver participation gains this cycle and further diversify our industry mix
- Emerson is winning large greenfield control systems projects by deploying unmatched technology with integrated Main Automation Contractor (MAC) Services -- creating new value for customers
- Systems & Solutions pulls the full scope of Automation Solutions' Instrumentation and Final Control products
- We consistently win modernization projects in competitors' installed base
- Innovative aftermarket services offerings provide decades of continued customer engagement
- Continuing to grow our served market in consulting, data management software and machine control with new offerings and acquisitions

Systems & Solutions 2018 Summary & 2021 Target

	<u>2017</u>	<u>2018</u>	<u>2018 – 2021T</u>
Sales	\$2.0B	\$2.1B	~\$3.0B 2021T w/ acquisitions
Underlying*		4%	6 – 8% CAGR
Market Growth			4% CAGR

Systems & Solutions Served Market Participation Has Grown Steadily Since the Mid '90s





Control Readers Choice Awards Ranks - Continuous & Batch Control Category

	1992	2001	2002	2004	2006	2008	2015	2016	2017	2018	2019
#1	HON	HON	EMR								
#2	ElsagBailey	EMR	HON	ROK	ROK	ROK	ROK	ROK	ROK	HON	HON
#3	Foxboro	ROK	ABB	HON	HON	HON	HON	HON	HON	ROK	ROK

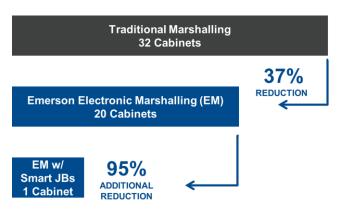
We Are Expanding Our Systems & Solutions Served Market by **\$8B**

Top 120 Projects By Order Timing

We See Improving Project Win Rates In Industries Leading the Investment Waves

Emerson's Digital Technologies Have Transformed How Capital Projects Are Executed

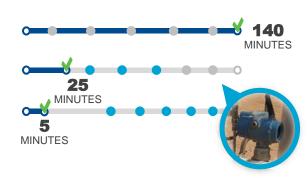
Electronic Marshalling



Cloud Engineering



Smart Commissioning



Reduce Hardware and Wiring by up to 60%

Eliminate Factory Acceptance
Hours by up to 80%

Reduce Commission
Time by 90%+

Results Achieved At Major Energy Company

33% Decrease

In Total Installed Cost

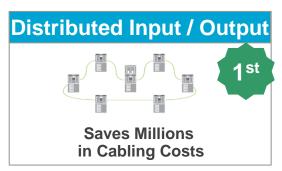
3 to 6 Months

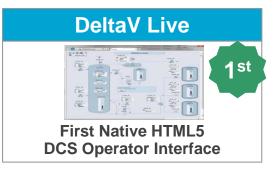
Schedule Flexibility

DeltaV's New Breakthrough Design Expands Served Market and Enables Customer's Digital Transformation







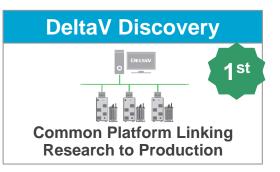




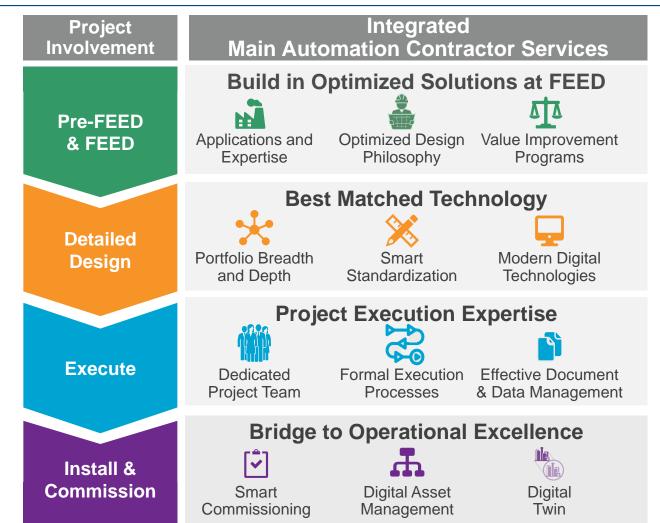








Emerson's Premier Main Automation Contractor (MAC) Capabilities Changed Industry Practices



Emerson Has a Strong Track Record of Converting Competitive Control Systems to Our Installed Base

Global Installed Base Generates Significant Sales from Focused and Innovative Lifecycle Management Programs

Installed Base

DeltaV & Ovation Installed Control Systems

Systems Service Engineers

Service Programs

CORE

Service Agreements
Evergreen Programs
HW / SW Spares
Upgrades / Expansions
Guardian Support

EXPANSION

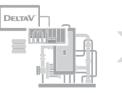
Cybersecurity
Digital Twin
Outcome Based Services
Alarm Management
System Health Monitoring

Guardian Subscription Contracts

2018 Sales

10%'13 - '18 Sales CAGR

Guardian Support



A Thousand DeltaV
Scans Per Month

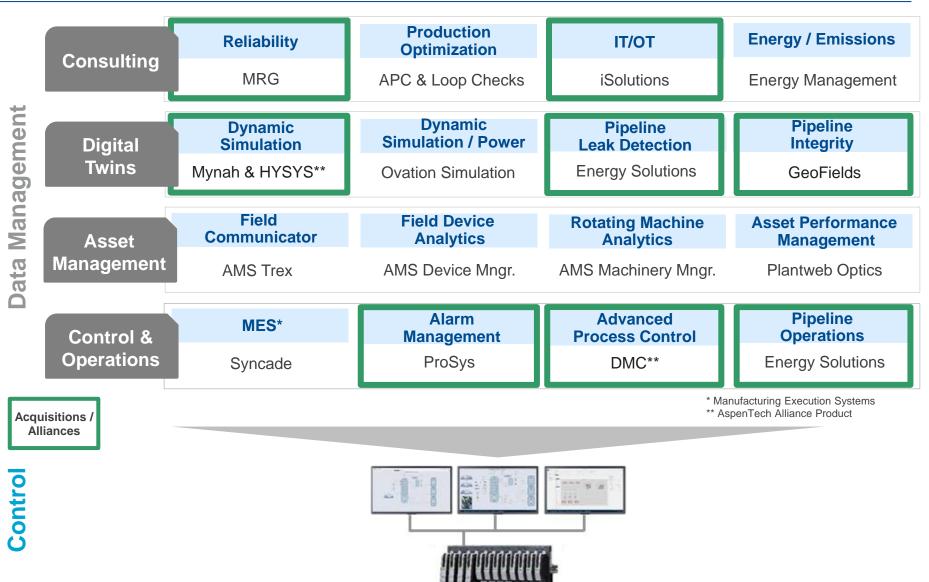


Complex Data Analytics



Simple System Health Score

Large Installed Base Creates Opportunities for Our Expanding Software and Consulting Portfolio



Systems & Solutions 2018 Summary & 2021 Target

	<u>2018</u>	<u>2018 – 2021T</u>
Sales	\$2.1B	~\$3.0B 2021T w/ acquisitions
Underlying*	4%	6 – 8% CAGR
Market Growth		4% CAGR

- Deliver served market participation gains this cycle -- leading with our technology and MAC service offerings
- Win in competitors' installed base
- Lifecycle offerings and expanding software portfolio enhances our customer engagement

We Provide a Broad Portfolio of Products and Software in the Control and Software Market





Modeling



Operations & Alarm Management



Advanced **Process** Control



Planning & Scheduling



Plant Asset Management



Control **Engineering**



Training & Simulation



Real-time **Optimization**



Energy Management



Asset Integrity Management

ENGINEERING & DESIGN

CONTROL SOFTWARE

PRODUCTION MANAGEMENT **ASSET RELIABILITY** & PERFORMANCE

Control

Field Devices



PROCESS CONTROL & **SAFETY SYSTEMS**



WELLHEAD CONTROL

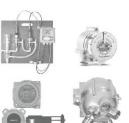




MODULAR AND MACHINE



MACHINERY HEALTH





CONTROL





MEASUREMENT & FLOW

ANALYTICAL

SOLENOIDS & PNEUMATICS

FINAL CONTROL

Machine Automation Solutions

Mike Train President



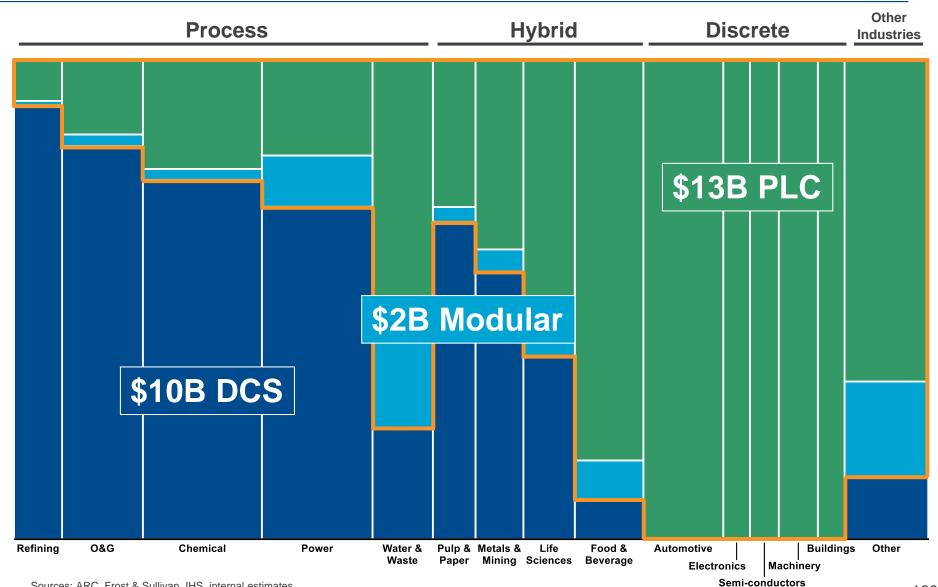
We Have A Strong Foundation in Hybrid and Discrete Industries From Which to Grow Our Relevance

Machine Automation Solutions Key Messages

- We continue to build our technology portfolio through organic innovations and acquisitions broadening our solutions capabilities
- Intelligent Platforms is an important building block that expands our served market by \$13B and enhances our leading control capability
- We are committed to invest in the core Intelligent Platforms technology to enable Emerson to become a Tier 1 machine control provider
- Our comprehensive control portfolio extends the Plantweb digital ecosystem to all manufacturing sectors

We Continue to Expand Our Automation Solutions Capabilities

Process, Hybrid and Discrete Industries Have Diverse **Control System Requirements**



Emerson Has the Most Comprehensive Control Portfolio

PROCESS CONTROL & SAFETY SYSTEMS













WELLHEAD CONTROL



Remote
Automation
Solutions
Low Power Control

for Distributed Assets

MODULAR CONTROL



DeltaV PKSkid Applications That Integrate to DCS

Ovation OCC Renewable Power Applications



MACHINE CONTROL



MACHINERY HEALTH



Eliminating Islands of Automation is a Major Value Creation Opportunity

DeltaV PK Controller

→ Process and Hybrid Applications



Standalone and native on DeltaV
Control System

Application Examples

- Small Standalone Systems
- OEM Skids, Well Pads
- Edge Controller incl.
 Embedded Analytics
- Ethernet Device Control

Ovation Compact Controller

→ Power and Water Applications



Standalone and native on Ovation Control System

Application Examples

- Renewables
- Microgrid
- Coal Handling
- Hydro Power
- Water / Wastewater Pump Stations

Intelligent Platforms PLC

→ Discrete and Hybrid Applications



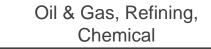
Standalone and will interface with other Emerson Control Systems

Application Examples

- OEM Machinery
- Assembly Lines
- Filling & Packaging
- High-speed Control
- Electrical Load Shedding
- Edge Applications

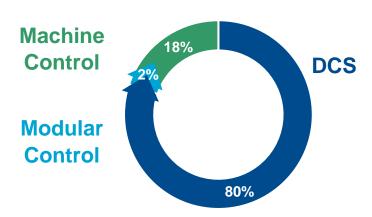
Extending Emerson's Leadership in Process and Hybrid Control Markets

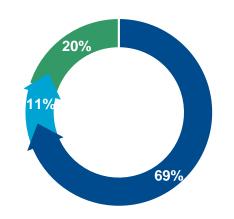
Control System Target Markets by Platform

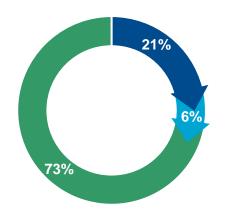




Life Sciences, Food & Beverage













DCS

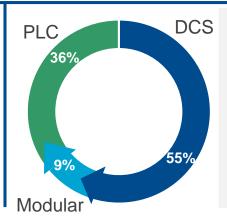
Modular Control

Machine Control

Enhanced DCS in 2018

New Modular Control in 2018

PLC Acquisition in 2019



PLC and Modular
Control Expands
Served
Process and Hybrid
Market by ~\$8B

Intelligent Platforms Profile

Key Facts & Background:

Founded 1981

Headquarters Charlottesville, Virginia

Key Locations Augsburg (Germany),

Bangalore (India), Shanghai (China)

Employees 650

Installed Base: \$2B+

2017 Sales (\$M) ~210

Technology Differentiators









Ruggedness

Reliability

Cybersecurity

Optimization & Analytics

Sales by Geography

Europe

27%

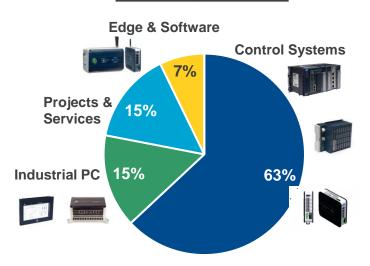
Asia, Middle

East & Africa

Sales by Industry

Metro Water & & Rail Wastewater Oil & Gas 6% 20% and Process 9% 10% Renewables 53% 72% Manufacturing **Americas** & OEM

Sales by Product



Intelligent Platforms is a Strategic Investment That Will Enhance Our Solutions Capability in All End Markets

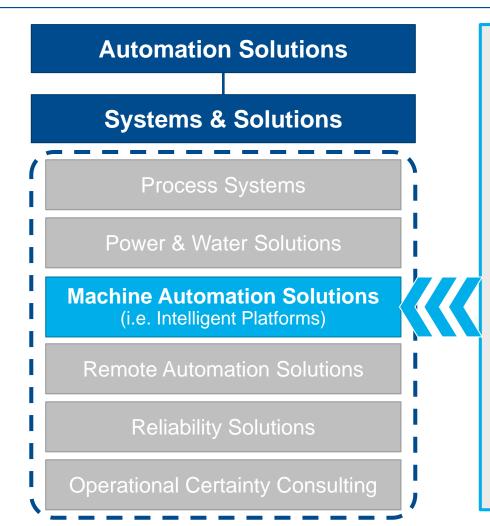
Current Outlook

- Expected 2019 impact to EMR Sales: \$125M
- One time transaction costs will impact 2019 EPS (\$0.03)
- Immediate value creation opportunities through technology and channel synergies

Years 2 Through 5

- Technology investment of \$10 15M per year in first 3 years focused on integration with Emerson DCS platforms and core PLC functionality
- Establish lifecycle programs to support and expand \$2B+ installed base

Emerson's Control Layer Is In One Organization Focused On Technology Development and Operational Synergies



10 Value-Acceleration and Functional Teams

Pre-Closing Focus Areas

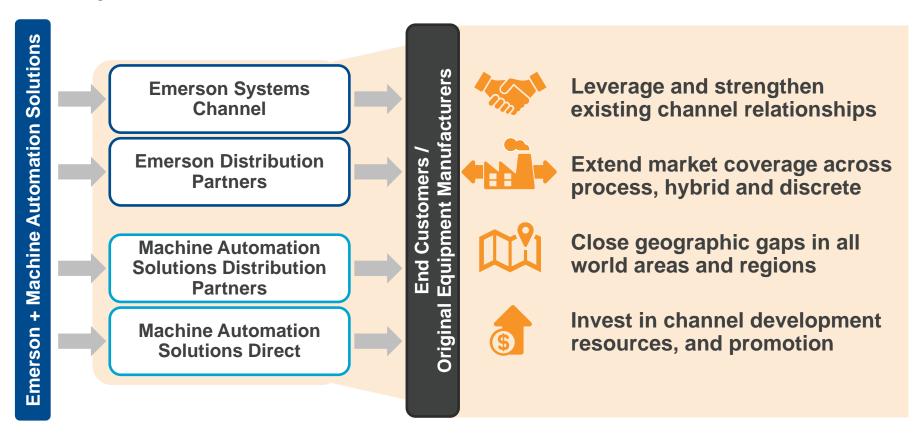
- Complex carveout from GE into a standalone business
- Significant number of transfer services provided by GE shared services

Current Integration Priorities

- Accelerate portfolio investments
- Leverage broadened portfolio to expand within key accounts
- Capture supply chain opportunities

Machine Automation Solutions Fills Key Gaps in Our Control System Market and Channel Coverage

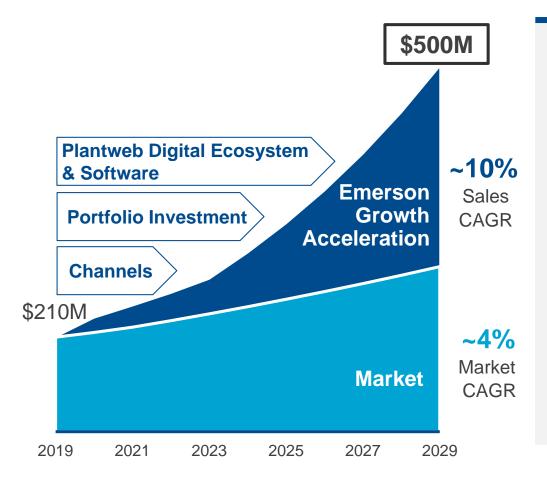
Multiple Channels to Customers



Machine Automation Solutions Technology Portfolio Is Positioned to Support Digital Transformation

Strategic Investments in Products and Channel Support Growth to \$500M Business by Year 10

Machine Automation Solutions



Accelerate near term product development programs to fill critical gaps:

- ✓ Integration with DeltaV and Ovation
- ✓ Integration with Plantweb
- ✓ Machine Safety
- ✓ Motion Control
- √ Small/Micro PLCs
- ✓ Ethernet / IP
- ✓ Remote I/O



Our Broad Control Portfolio Enables Integrated Solutions Throughout Our Customers' Manufacturing Value Chains

Process

Eliminate islands of automation

Key opportunities

Refining & Chemical

Renewable Energy





- Close existing gaps in plant control offering
- Leverage PLCs in KOB1 and KOB2 projects

Hybrid

Be a complete solutions provider

Key opportunities

Food & Beverage

Metals & Mining





- Offer complete end-toend plant solutions
- Drive penetration in common strategic accounts

Discrete

Expand into adjacent discrete spaces

Key opportunities

Packaging



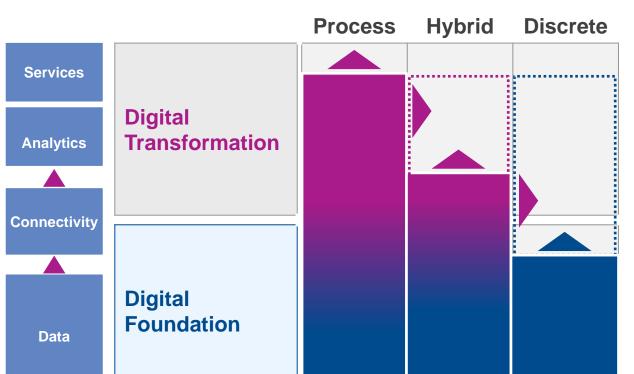




- Leverage and connect Emerson device portfolio in target verticals
- Develop new offerings for Machine Automation Solutions installed base

Our Control Portfolio Enables Plantweb Digital Ecosystem Across Many High-value Applications

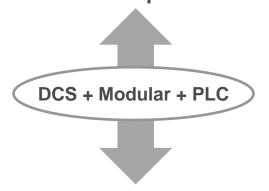






2017 & 2018 Industrial IoT Company of the Year

Creating a broad ecosystem of applications and services to transform operations



Connecting the industry's broadest portfolio of intelligent devices

Final Control

Ram Krishnan Group President, Final Control



Final Control

Ram Krishnan Group President, Final Control



Final Control Key Messages

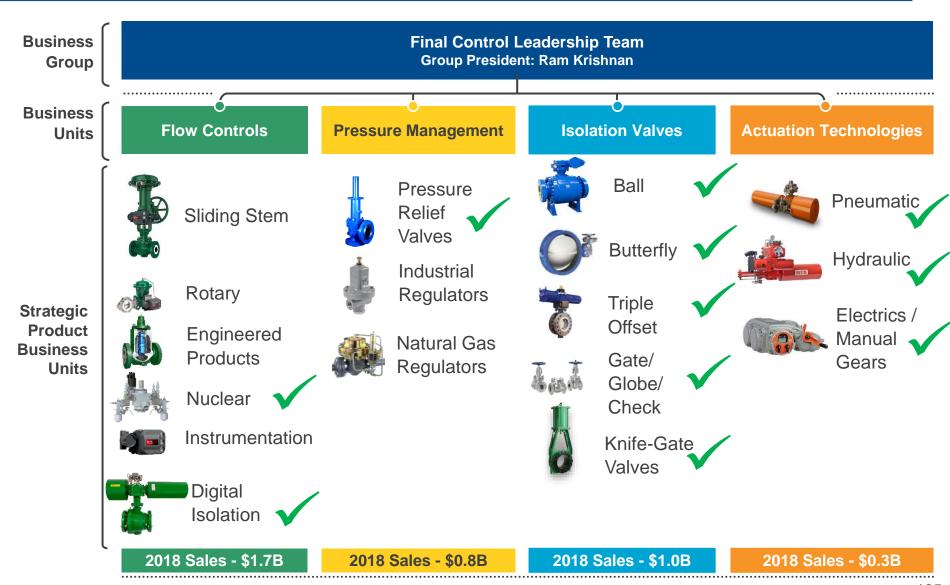
- Acquisition of Valves & Controls transforms Final Control into the biggest/broadest solutions provider and strengthens Automation Solutions
- Integration activities progressing to plan; we remain on track to deliver on our synergy programs
- Seeing continued momentum in our served markets; we are strategically positioned to capture large investment waves in 2019-2021
- Enabling customers to achieve Top Quartile Performance in both project and operational environments as their Main Valve Partner
- Investments to create a world-class Final Control franchise continue at an aggressive pace – global service infrastructure, regional manufacturing capacity and technology programs

Final Control 2018 Summary & 2021 Target

	<u>2017</u>	<u>2018</u>	<u>2018 – 2021T</u>
Sales	\$2.7B	\$3.8B	~\$5B 2021T w/ acquisitions
Underlying*		13%	7 – 9% CAGR
Market Growth			4% CAGR

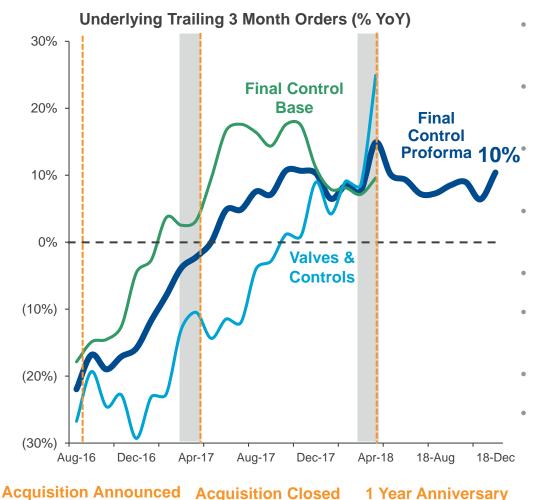
New Final Control Business Group Management Structure





Final Control Competitive Landscape 2018 Served Market by Product

Valves & Controls Integration Accomplishments



- New organization structure and leadership team established
- Single integrated channel in place in all world areas
 - Main Valve Partner strategy launched; resulting in many 'combined portfolio' wins
- Operating Model Transformation (OMT) unwind successfully completed
- Brand rationalization complete
- \$18+M of supply chain synergy savings negotiated
- 10 manufacturing facilities closed
- Significant improvements in service levels and reduction in overdue backlog

ed

Year Anniversary April 28, 2018

Synergy Programs on Track to Deliver on the Year 5 Commitment

Relentless Focus on Decreasing Overdue Backlog While Improving Our Service Levels

Trade Working Capital Productivity Programs Will Deliver Significant Cash by 2021

Top 120 Projects by Order Timing

Main Valve Partner Proven Driver of Global Project Execution Success



Project Involvement

Project Certainty Enablers

Outcomes

Reliably

Building it into the Design

As an Owner

Optimizing Cost & Alleviating Risk

Efficiently

Digitizing Workflows

Locally

To Support the Lifecycle

Pre-FEED & FEED

Detailed Design

Execute

Install & Commission

Build in Optimized Solutions at FEED



Applications and Safety Expertise



Optimized Design Specifications



Performance vs. Cost Optimization

Best Matched Technology



Portfolio Breadth and Depth



Judicious Standardization



Automated Valve Solutions

Project Execution Expertise



Dedicated Project Team



Formal Execution Processes



Effective Document Management

Single Partner Accountability



Compliance Management



Digital Asset Tagging & Tracking



Certified Expert Technicians









Scope, Strength and Experience in Mega **LNG** Projects Positions Us Well For the Growth Wave

We Will Leverage Our Leading Position in Refining & Chemical to Capture the Investment Wave

Main Valve Partner Delivering Lifecycle Success for All Critical Valves



How We Partner

Operational Involvement

Operational Certainty Enablers

Outcomes

Consistently

On-going Care of Every Valve Asset

Proactively

Prioritizing
What Matters
Most

SureService™ Agreements

Responsibly

Ensuring Safety and Peace of Mind Maintenance Services

> Reliability Services

Performance Services

Expertise to Optimize Safety and Minimize Costs



Installed Base and Spares Planning



QuickShip and Local Distribution



Global Service Network

Eliminate the Unknowns with Prognostics and Planning



Shutdown, Turnaround & Outage Execution



Mobile Service Centers



Asset Diagnostics and Connected Services

Outcome-Based Long-term Service Agreements



Total Asset Management



Resident Asset Manager



Preventive and Predictive Agreements







Global Service Footprint Investments Will Further Protect and Grow our Installed Base

Investments in <u>Next Generation Products</u> Will Drive Continued Technology Leadership and Market Separation

Investments in <u>Manufacturing Regionalization</u> Are Critical to Serve Our Customers Locally

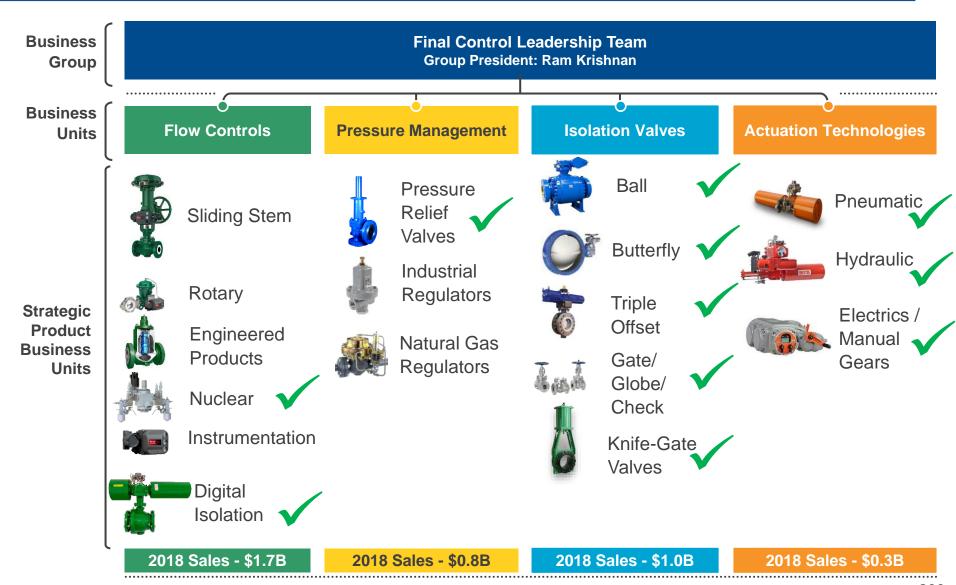
Final Control 2018 Summary & 2021 Target

	<u>2018</u>	<u>2018 – 2021T</u>
Sales	\$3.8B	~\$5B 2021T w/ acquisitions
Underlying*	13%	7 – 9% CAGR
Market Growth		4% CAGR

- Integration of Valves & Controls progressing to plan;
 synergy programs on track
- Well positioned to capture large project investment waves
- Continued investments to lead and separate

New Final Control Business Group Management Structure





UNLEASHING NEW POSSIBILITIES **EMERSON**

UNLEASHING NEW POSSIBILITIES **EMERSON**

In this presentation non-GAAP measures (denoted with an *) are used when talking about the Company's performance, and a reconciliation of those measures to the most comparable GAAP measures is contained below.

(\$ in billions, except per share amounts or where noted)

Sales % chg. vs. PY

Sales change (GAAP)

FΧ

Acq/Div

Underlying*

Sales % chg. vs. PY

Sales change (GAAP)

FX Acq/Div

Underlying*

Sales % chg. vs. PY

Sales change (GAAP)

FX

Acq

Underlying*

Sales CAGR

Sales CAGR (GAAP)

Acq/Div/FX

Sales underlying CAGR*

201	8
	14%
	(1)%
	(5)%

	2018E
_	11 - 13%
	~(2)%
	~(4)%
	5 - 7%

2019	2019E			
Q1	Q1 Q2		Q4	FY
9%	~10%	7 -10%	4 - 7%	7 - 10%
1.5%	~ 3%	~ 2%	~ 1%	~ 2%
(6)%	~ (6.5)%	~(5)%	~ (1)%	~ (5)%
4.5%	~6.5%	4 - 7%	4 - 7%	4 - 7%

2018-2021T
~8+%
~(3)%
~5+%

In this presentation non-GAAP measures (denoted with an *) are used when talking about the Company's performance, and a reconciliation of those measures to the most comparable GAAP measures is contained below.

(\$ in billions, except per share amounts or where noted)

EPS Growth

EPS growth (GAAP) 2019 EPS headwinds Adjusted EPS growth*

EBIT Margin

Pretax margin (GAAP)
Interest expense, net
EBIT margin*
Acquisitions impact
EBIT margin excluding acquisitions*

Gross Profit Margin

Gross profit margin (GAAP)
Acquisitions impact
Gross profit margin excluding acquisitions*

Earnings Per Share

Diluted earnings per share (GAAP) Repositioning items and divestiture gains Adjusted diluted earnings per share*

Earnings Per Share

Earnings per share from continuing operations (GAAP)
Valves & Controls first year acquisition accounting charges
Earnings per share from continuing operations, excluding
Valves & Controls first year acquisition accounting
charges*

2018-2021T				
~9%				
	~3%			
	~12%			

2018E	2018	2019E	2018 vs 2019E	2021T
~15.8%	15.3%	~16.1%	~80 bps	~17%
~0.9%	0.9%	~0.9%	~0 bps	~1%
~16.7%	16.2%	~17.0%	~80 bps	~18%
	0.4%			
	16.6%			

2018
42.9%
 0.2%
43.1%

	2015		
\$ 3.99			
	(0.82)		
\$	3.17		

2017				
\$ 2.54				
	0.10			
\$	2.64			

In this presentation non-GAAP measures (denoted with an *) are used when talking about the Company's performance, and a reconciliation of those measures to the most comparable GAAP measures is contained below.

(\$ in billions, except per share amounts or where noted)

Free Cash Flow

Operating cash flow (GAAP)
Impact of taxes on divestiture gains and repositioning items
Operating cash flow adjusted*
Capital expenditures
Free cash flow*

Free Cash Flow to Net Earnings Common Stockholders

Operating cash flow to net earnings (GAAP)
Capital expenditures & impact of divestiture gains
(& taxes paid), repositioning items, impairments & tax reform
Free cash flow to net earnings adjusted*

Dividend To Free Cash Flow

Dividends to operating cash flow (GAAP)
Capital expenditures & impact of taxes on divestiture gains & repositioning items
Dividends to free cash flow*

Total Debt / EBITDA

Total debt / pretax earnings (GAAP)
Interest, taxes, depreciation, amortization
Total debt / EBITDA*

2013	2014	2015	2016	2017	2018	2019E	2021T
\$ 3.6	3.7	2.5	2.9	2.7	2.9	~3.2	~4.0
 -	-	0.5	0.2	-	-	-	-
3.6	3.7	3.0	3.1	2.7	2.9	~3.2	~4.0
 (0.6)	(0.8)	(0.7)	(0.6)	(0.5)	(0.6)	~(0.7)	~(0.7)
\$ 3.0	2.9	2.3	2.5	2.2	2.3	~2.5	~3.3

2013	2014	2015	2016	2017	2018E	2018	2019E	2020T - 2021T
182%	172%	93%	176%	164%	~150%	131%	~140%	~130% - 140%
(66)%	(62)%	12%	(45)%	(29)%	~(30)%	(17)%	~(40)%	~(20)%
116%	110%	105%	131%	135%	~120%	114%	~ >100%	~110 - 120%

	2013	2014	2015	2016	2017	2018E	2018	2019E	2020T	2021T
	32%	33%	50%	43%	46%	~42%	43%	~38%	~37%	~34%
_	8%	8%	6%	5%	10%	~11%	11%	~9%	~9%	~8%
	40%	41%	56%	48%	56%	~53%	54%	~47%	~46%	~42%

2013	2014	2015	2016	2017	2018	2019E	2020T	2021T
1.8x	1.8x	1.6x	2.9x	2.0x	1.8x	1.7x	1.8x	2.0x
(0.5)	(0.4)	(0.3)	(0.7)	(.5)	(0.5)	(0.4)	(0.4)	(0.4)
1.3x	1.4X	1.3x	2.2x	1.5x	1.3x	1.3x	1.4x	1.6x

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(\$ in billions, except per share amounts or where noted)

Automation Solutions Underlying Sales Growth

Automation Solutions sales growth reported (GAAP) Acq/Div/FX Automation Solutions underlying sales growth*

Automation Solutions 2018 Sales By Geograhy

Automation Solutions sales by geography (GAAP) Aventics proforma impact Automation Solutions sales by geography including Aventics*

Systems & Solutions Underlying Sales Growth

Systems & Solutions sales growth reported (GAAP) Acq/Div/FX Systems & Solutions underlying sales growth*

Final Control Underlying Sales Growth

Final Control sales growth reported (GAAP) Acq/Div/FX Final Control underlying sales growth*

Valves & Controls EBIT Margin

EBIT (GAAP)
Other income (deductions)
Operating margin*

	2018E	2018	2019E	2018-2021T CAGR
L	18 - 20%	21%	7 - 10%	8 - 11%
	~(12)%	(11)%	~(2)%	~(3)%
-	6 - 8%	10%	5 - 8%	5 - 8%

Americas	Europe	Asia, Middle East & Africa
48%	20%	32%
1%	1%	(2)%
49%	21%	30%

2018	2018-2021T CAGR
2%	9 - 11%
2%	~(3)%
4%	6 - 8%

	2018-2021T
2018	CAGR
41%	9 - 11%
(28)%	~(2)%
13%	7 - 9%

2H 2018	2018		
-%	~2%		
~10%	~6%		
~10%	~8%		

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(\$ in billions, except per share amounts or where noted)

Commercial & Residential Underlying Sales Growth

Commercial & Residential sales growth reported (GAAP) Acq/Div/FX

Commercial & Residential underlying sales growth*

Commercial & Residential Sales

Sales (GAAP) ClosetMaid impact

Sales excluding ClosetMaid*

Commercial & Residential EBIT

Commercial & Residential EBIT (GAAP)

ClosetMaid impact

Commercial & Residential EBIT excluding ClosetMaid*

Comm & Res Sols Excluding ClosetMaid Sales CAGRs

Sales CAGR (GAAP)

Acq/Div/FX

Underlying sales excluding ClosetMaid CAGR*

Commercial & Residential EBIT Margin

Commercial & Residential EBIT margin (GAAP)

ClosetMaid impact

Commercial & Residential EBIT margin excluding ClosetMaid*

Commercial & Residential Return on Total Capital (ROTC)

Commercial & Residential ROTC (GAAP)

ClosetMaid impact

Commercial & Residential ROTC excluding ClosetMaid*

				2018-2021T
2017	2018E	2018	2019E	CAGR
5%	1-3%	2%	8 - 10%	5 - 7%
1%	~3%	2%	~(5)%	~(2)%
6%	4 - 6%	4%	3 - 5%	3 - 5%

2017		2018	2017 vs 2018	
\$	5.9	\$ 6.0	2%	
	(0.3)	-	6%	
\$	5.6	\$ 6.0	8%	

2017		2018	2017 vs 2018	
\$	1.4	\$ 1.4	0%	
	(0.1)	-	1%	
\$	1.3	\$ 1.4	1%	

2005-2018 ~ 2.0% ~1.6%

2017	2018	2017 vs 2018
23.2%	22.6%	(60) bps
1.0%	0.0%	(100) bps
24.2%	22.6%	(160) bps

2017	
48.0%	
4.0%	
52.0%	

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Tools & Home Products Underlying Sales Growth

Tools & Home Products Sales Growth Reported (GAAP) Acq/Div/FX

Tools & Home Products underlying sales growth*

Tools & Home Products Sales Excluding ClosetMaid

Tools & Home Products sales reported (GAAP) ClosetMaid sales

Tools & Home Products sales excluding ClosetMaid*

Global Heating & Cooling Underlying Sales Growth

Global Heating & Cooling sales growth reported (GAAP) Acq/Div/FX

Global Heating & Cooling underlying sales growth*

Global Cold Chain Underlying Sales Growth

Global Cold Chain sales growth reported (GAAP) Acq/Div/FX

Global Cold Chain underlying sales growth*

	2018-2021T
2018	CAGR
(7)%	10 - 12%
12%	(6) - (7)%
5%	4 - 5%

2017	
\$	1.6
	(0.3)
\$	1.3

2018	2018-2021T CAGR
4%	2 - 4%
(1)%	-%
3%	2 - 4%

2040	2018-2021T
2018	CAGR
10%	5 - 7%
(5)%	-%
5%	5 - 7%

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