Customer Keynote

Frank R. Thompson

Group Vice President, Supply Chain

Parker Aerospace

Frank Thompson is the group vice president of supply chain management for Parker Aerospace. Named to the position in June 2007, Thompson in responsible for developing and implementing group-wide plans and strategies for strategic supply chain.

Joining the company in 1998, Thompson has led positions in procurement at Parker's Air & Fuel Division. Most recently, Thompson served as supply chain director for the division. Prior to coming to parker, Thompson held such roles as materials director and purchasing manager at Interstate Electronics Corporation and the former Hughes Aircraft Company.

Thompson earned a bachelor of science degree in finance from California State University, Long Beach, and a master in business administration degree from Pepperdine University, Irvine, California, campus. Thompson is also a graduate of Parker's Taking Charge of Change program.

SEA Gala Celebration
November 2010

Frank Thompson
Group Vice President, Supply Chain

ENGINEERING YOUR SUCCESS.

Key Facts about Parker

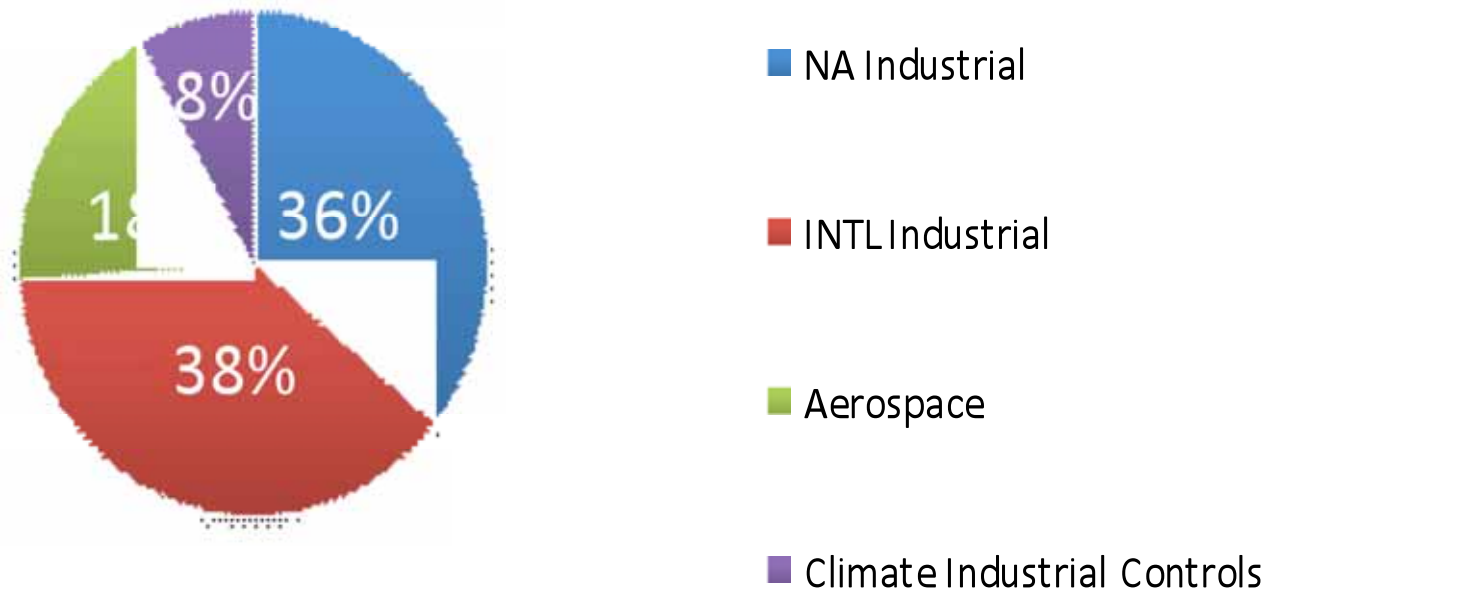
Global Leader in Motion and Control (NYSE:PH)

- $10.0 Billion in Revenue
- 839,000 Products Sold
- 471,000 Customers
- 55,000 Employees
- 13,000 Distribution/MRO Outlets Worldwide
- 1,100 Markets
- 132 Divisions
- 46 Countries

Strong Global Presence

More than Half of Industrial Sales now International

FY10 Sales: $10 Billion



Parker Aerospace

Broad Technology Platform

Aerospace

Refrigeration

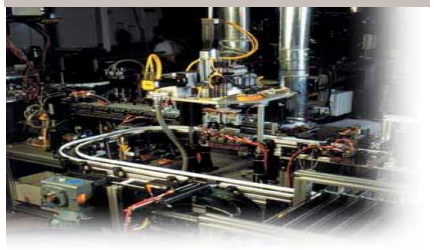
Electromechanical

Filtration

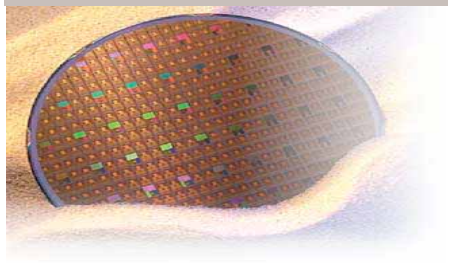
Fluid Handling

Hydraulics

Pneumatics



Process Control



Sealing & Shielding

A Clear Roadmap – "Win Strategy"

Vision

The #1 Motion & Control Company

Goals	#1 Premier Customer Service	Financial Performance	Profitable Growth
STRATEGIES	Quality Products on Time Value Added Services Best Systems-*PHconnect*	Suppliers ⇒ STRATEGIC PROCUREMENT Operation ⇒ LEAN Customers ⇒ STRATEGIC PRICING European Initiatives	*Internal*, *Acquisitions*, *Globalization* Innovative Products Systems Solutions Strong Distribution

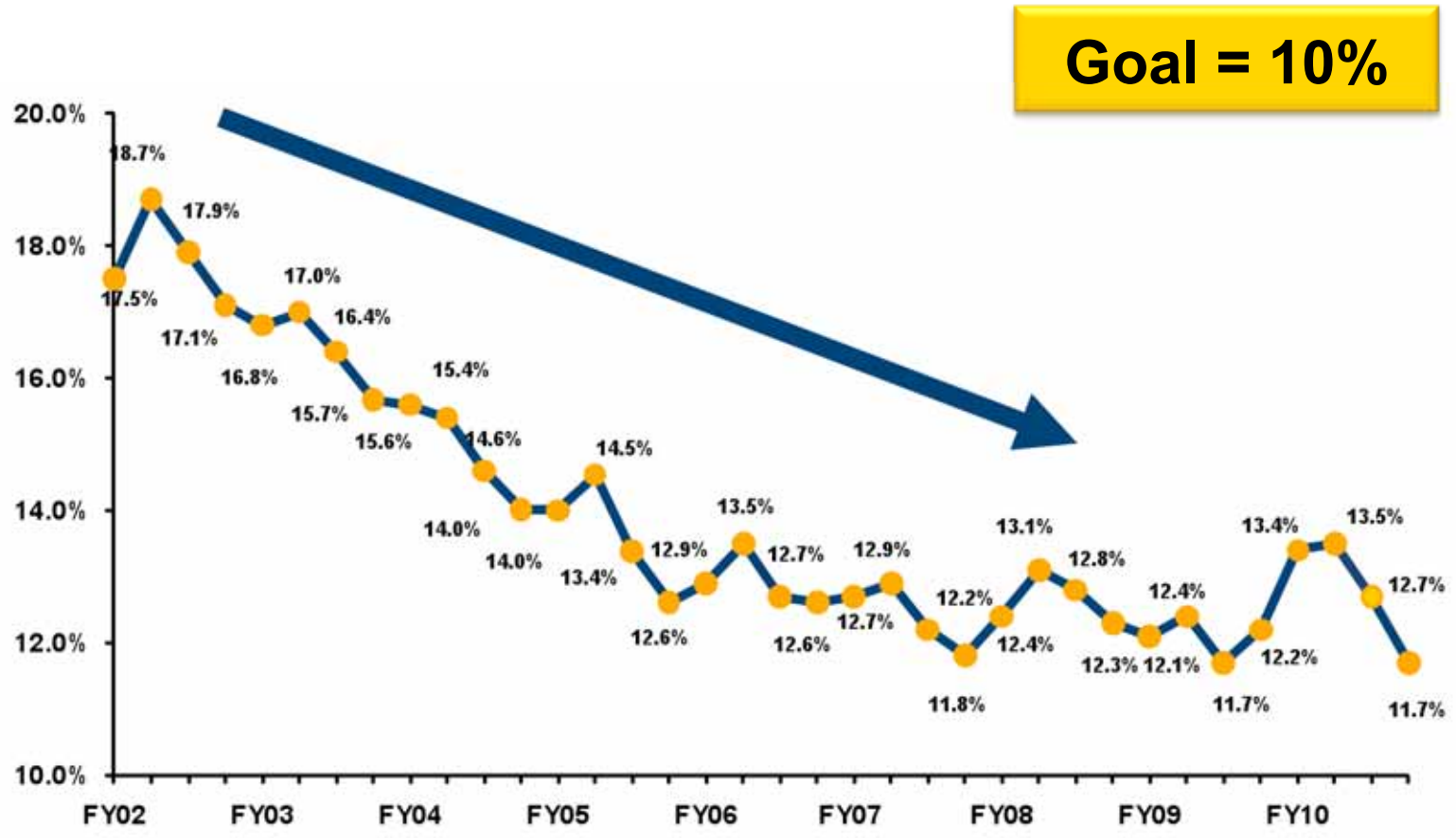
Empowered Employees

Management Priorities

- **Maintain a Strong Balance Sheet**
- **Invest in Growth Opportunities**
- **Navigate the Upturn**

Inventories Have Been Rationalized

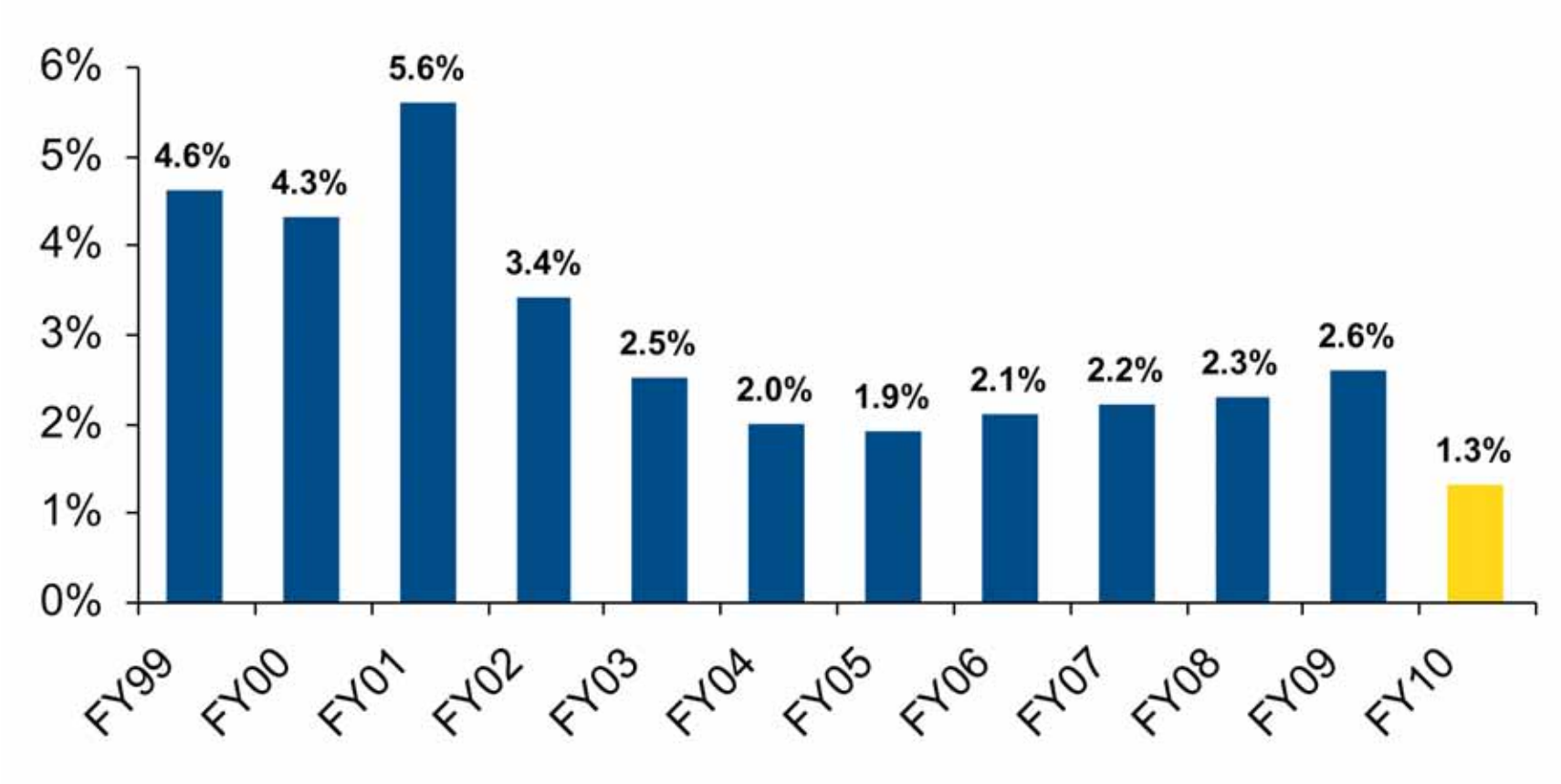
Inventory % to Sales



Parker Aerospace

Capital Expenditures Have Tightened

Capital Expenditures as a % of Sales

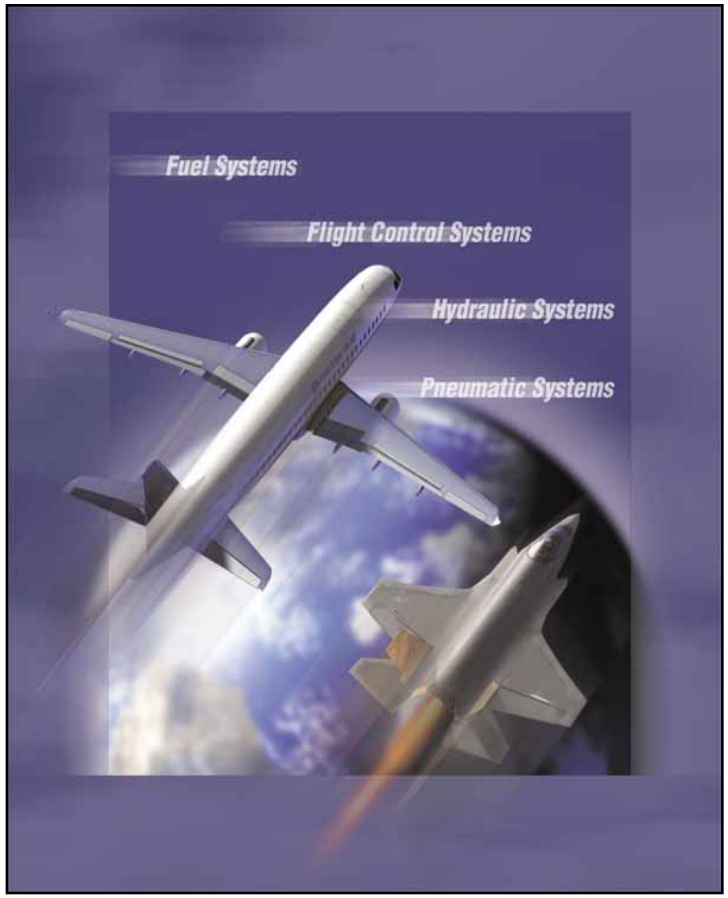


FY10 annual depreciation: 2.5%

Parker Aerospace

Parker Aerospace

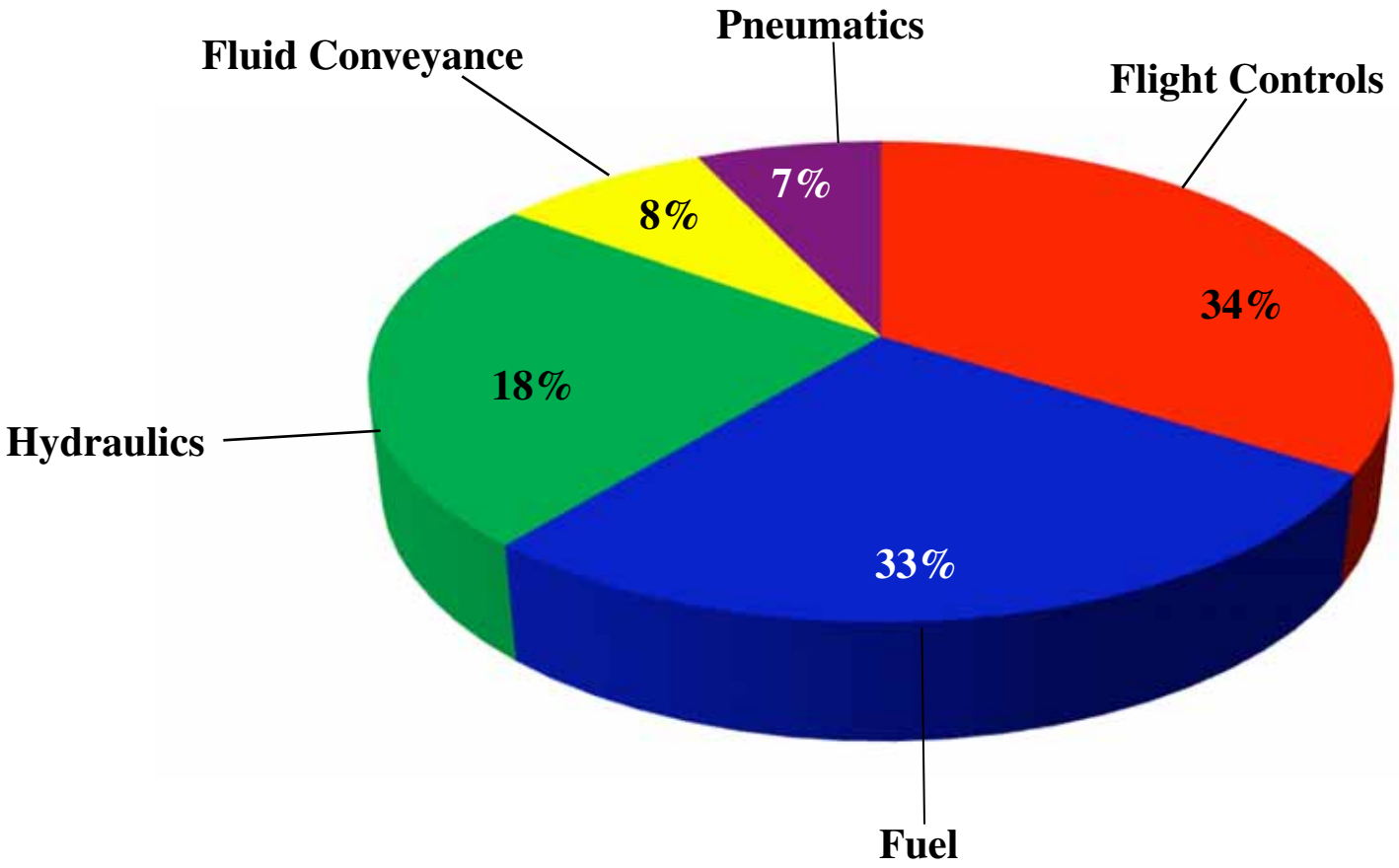
- **Global leader in:**
  - Flight control systems
  - Hydraulic systems
  - Fuel & Inerting systems
  - Pneumatic systems
  - Conveyance systems
- Headquartered in Irvine, California
- $1.7 billion in annual sales
- 5,600 employees
- 8 divisions, 43 worldwide locations



Parker Aerospace

A Broad Aerospace Product Line

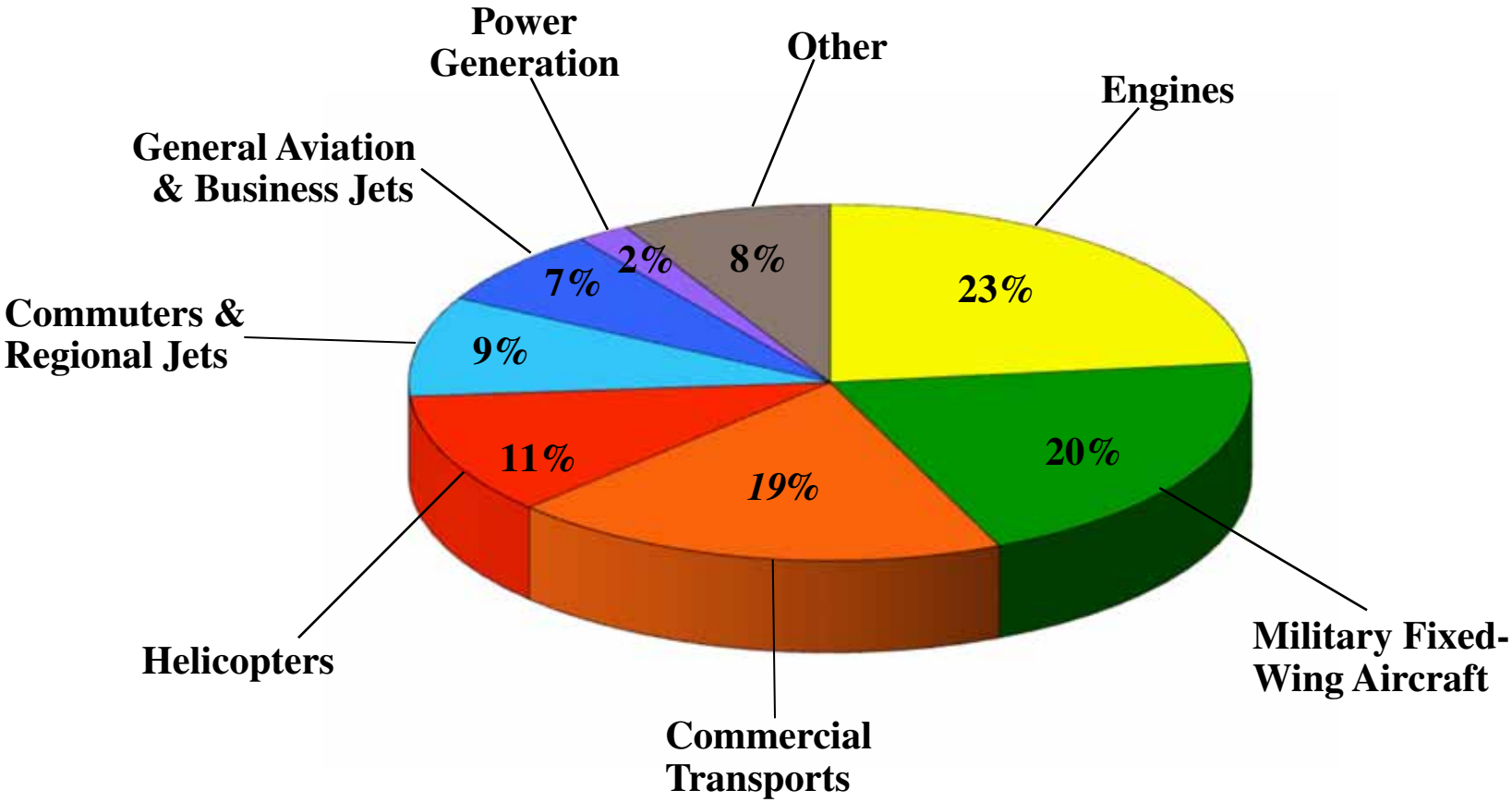
FY10



Parker Aerospace

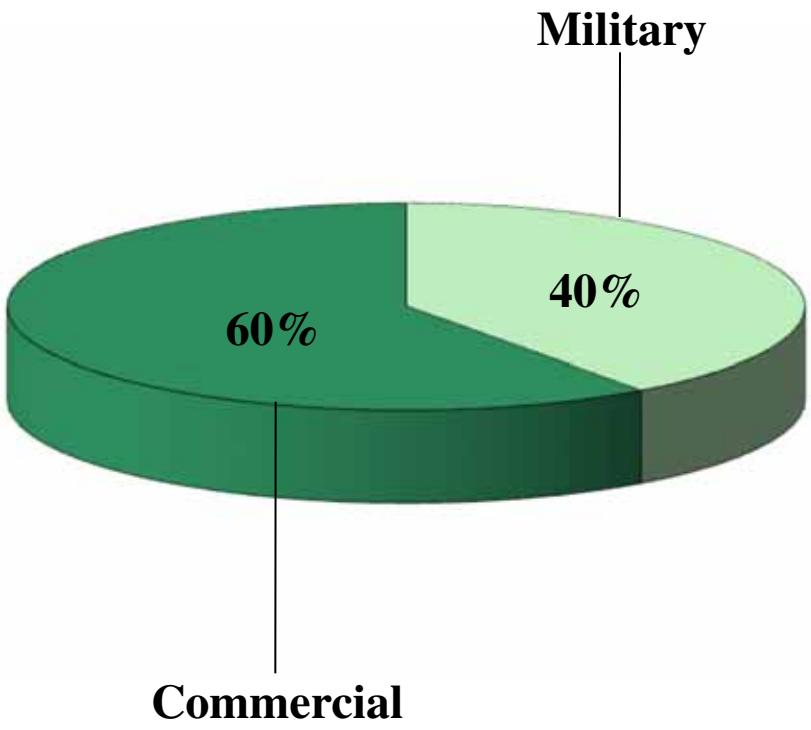
Our Market Segments

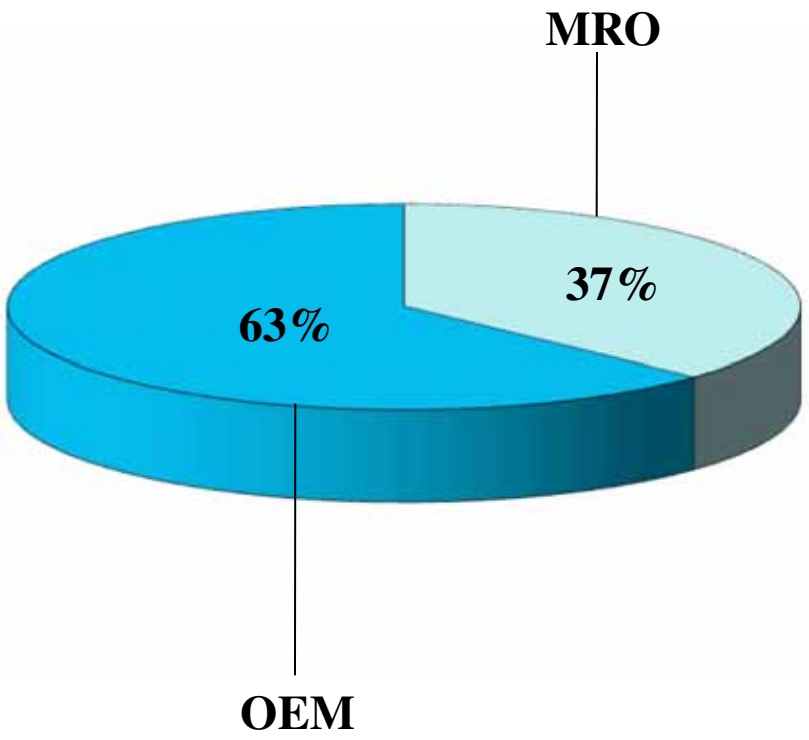
FY10



Our Market Mix

FY10





Parker Aerospace

Aerospace Group
FY08 – FY10 Program Wins

Total: $18 Billion

Parker Aerospace

Exceptional Level of New Platform Launches

Airbus 350
- Hydraulic Systems
- Fuel Systems
- Fuel Inerting Systems

COMAC C919
- Flight Control Systems
- Hydraulic Systems
- Fuel Systems

Bombardier C-Series
- Flight Control Systems
- Hydraulic Systems
- Fuel Systems

Rolls-Royce XWB
- Pneumatics valve suite
- Main oil pump
- Hydraulic EBU

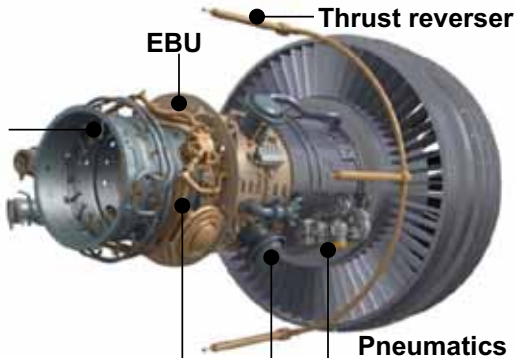
Gulfstream 650
- Flight Control Systems
- Fuel Management – measurement system

Embraer Legacy 450/500
- Flight Control Systems
- Hydraulic Systems
- Fuel Systems

Product applications

FC computers
Cockpit controls
Trim actuation
Primary/secondary FC actuators
Servovalves
Electronics
High-lift actuation
Surface-position sensors

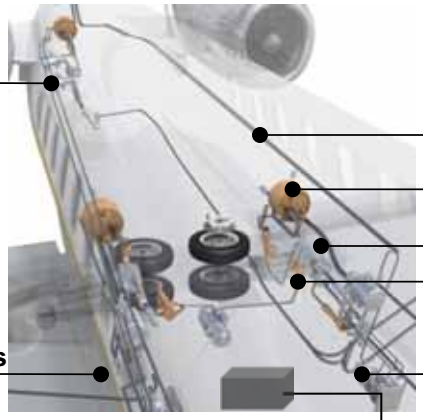
Flight control systems



Thrust reverser actuators
EBU
Fuel nozzles
Pneumatics
Pumps

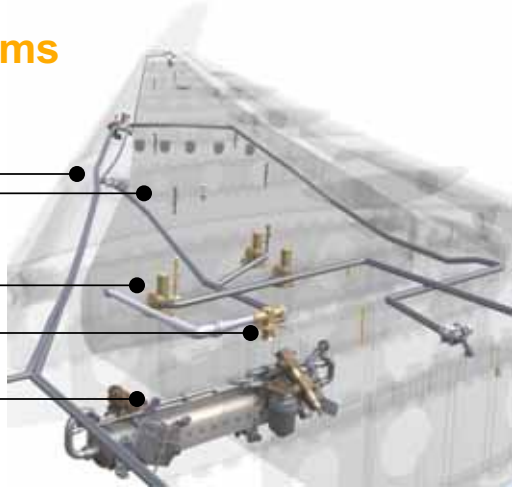
Engine systems

Fluid conveyance systems



Ground service equipment
Reservoirs
Filters
Accumulators
Valves
Heat exchangers
Pumps
Control electronics & software

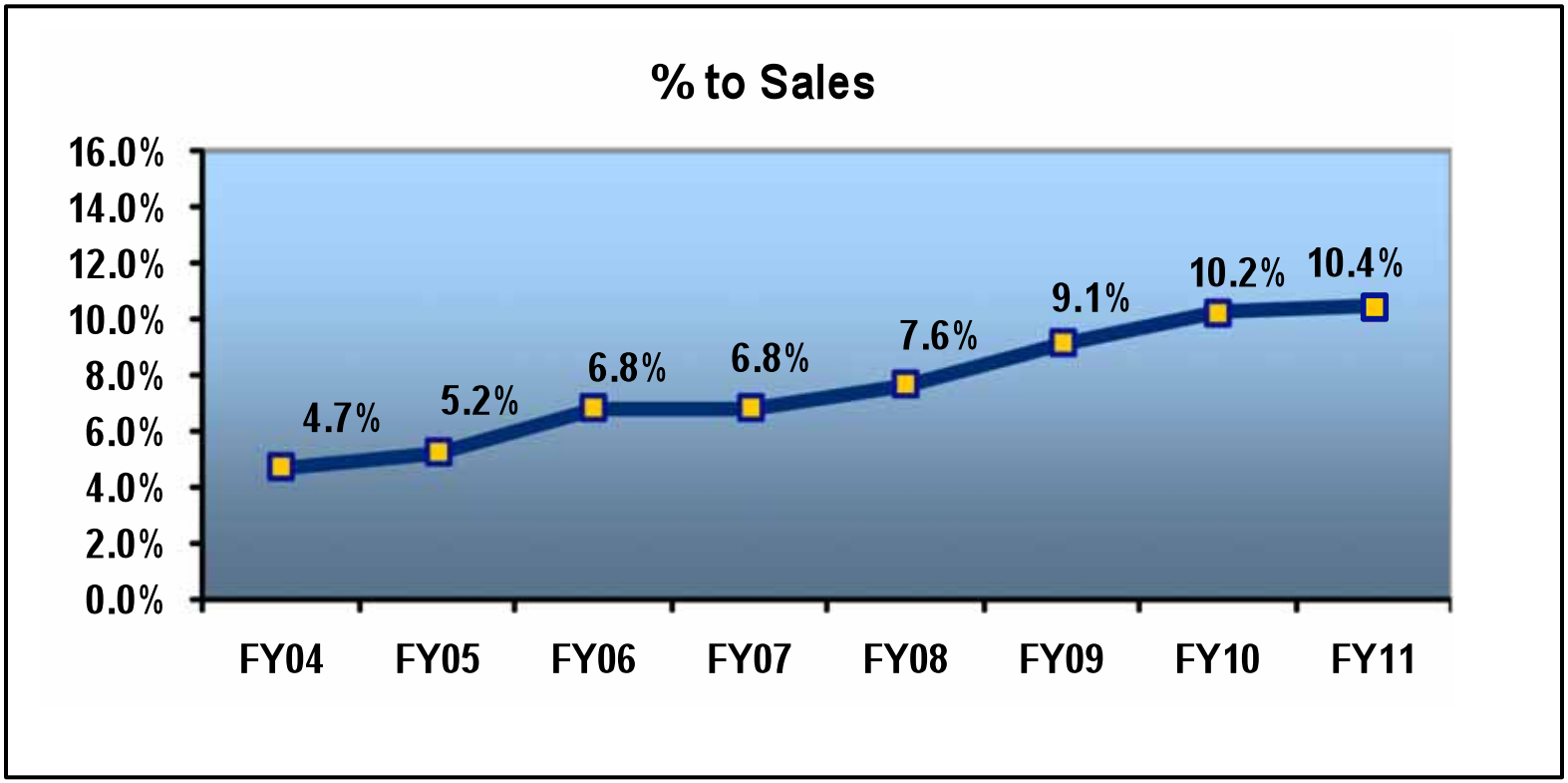
Hydraulic systems



Gauging
Pumps
Valves
Inerting

Fuel systems

Product Development Costs as a Percent of Sales



Parker Aerospace

The ambidextrous aerospace organization

Product Development

Research & Development
(Disruptive change)

- *New to world or industry*
- *Designed for demonstration*
- *Analytical or experimental*

Winovation

New technology, product, or systems knowledge expanding intellectual property

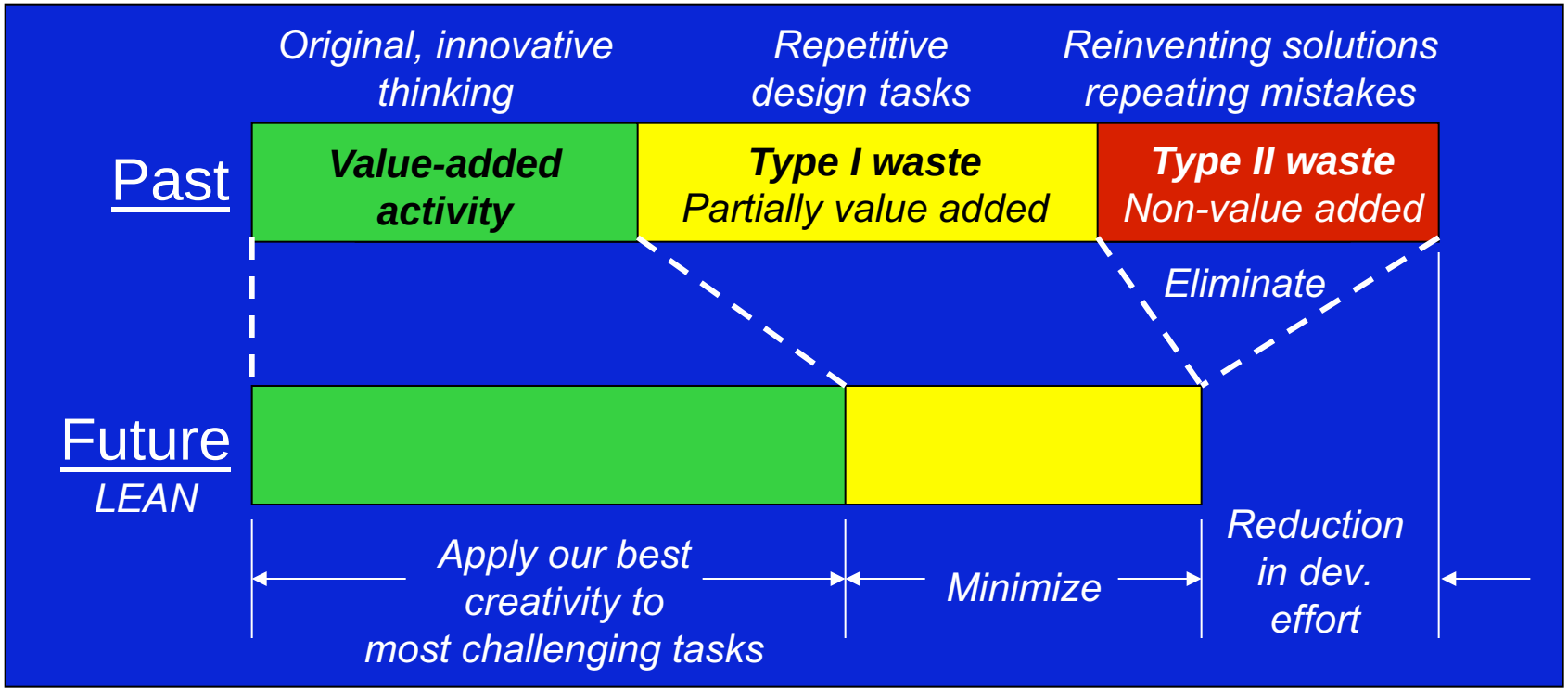
Contracted Programs
(Adaptive change)

- *Expansion of existing products*
- *Designed for production*
- *Qualified and certified*

SDDP

Application and adaptation of previously developed intellectual property

Lean product development objective



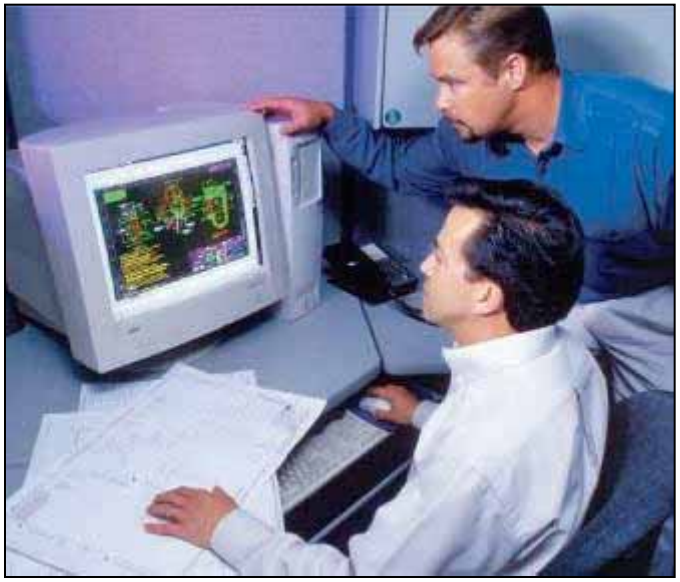
Parker Aerospace

Design-to-cost plan

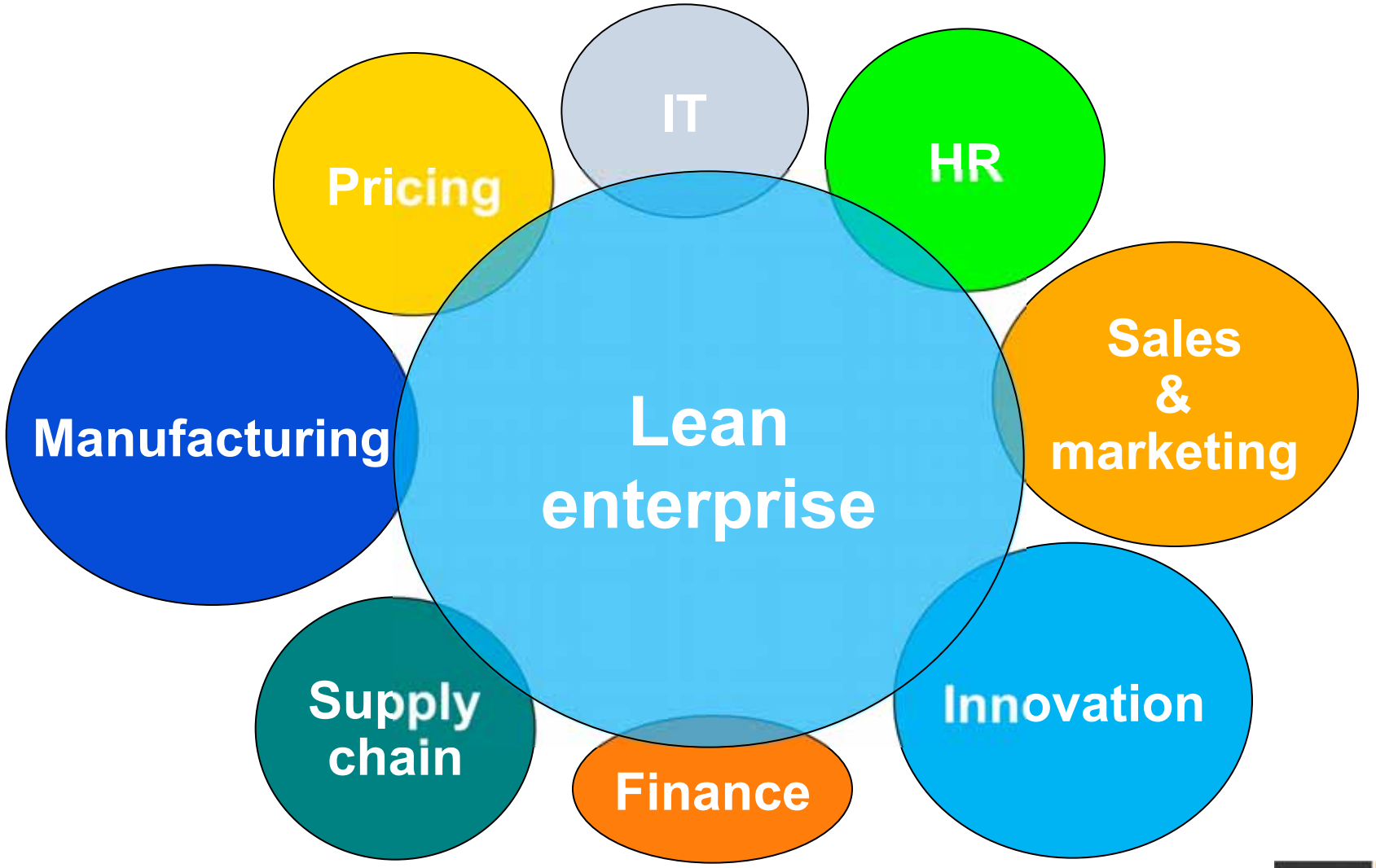
Careful planning minimizes cost

An initial estimate of manufacturing design cost based on concept and/or prototype sketches, drawings or models, past knowledge on legacy products, or competitive products

- Identifies high-cost drivers to consider redesigning or remanufacturing the part or product
- Reviewed by the program manager and technical team leader once per month
- Minimizes nonrecurring and recurring cost



Parker's lean enterprise



Parker Aerospace

Parker's lean enterprise

Lean enterprise is ***the way we operate*** our company around the world. Tools such as standard work, value stream mapping, visual controls, and error proofing are used to meet objective, measurable goals.

As these tools are applied, inventory levels and capital expenditures go down while productivity, quality, and return on net assets improve.

Lean is also taking hold in the office as areas such as finance, legal, and marketing reduce waste and improve productivity.

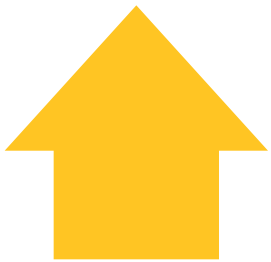
Lean programs create efficiency

All divisions participating

- Shop
- Office

Reduced

- Inventories
- Turn-around & cycle time
- Lead time
- Backlog



Increased

- Productivity
- Customer service
- Yield

The four rules of TPS

1. **All work shall be highly specified as to content, sequence, timing and outcome.**

   Standard work, 5S, and total productive maintenance

2. **Every customer-supplier connection must be direct, and there must be an unambiguous yes-or-no way to send requests and receive responses.**

   Flow, pull systems, and Jidoka

The four rules of TPS

3. **The pathway for every product and service must be simple and direct.**

JIT flow and pull systems (i.e. Kanban)

4. **Any improvement must be made in accordance with the scientific method, under the guidance of a teacher, at the lowest possible level in the organization.**

Structured problem solving, Kaizen, and empowered associates

The Parker lean system

- A set of tools, templates and training modules to deploy a consistent implementation of lean practices.

- Institutionalizes a rigorous plan-do-check-act (PDCA) process to drive lean throughout the organization.

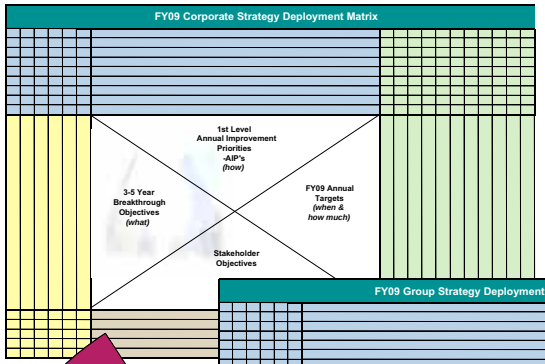
Parker's lean transformation

Strategy deployment

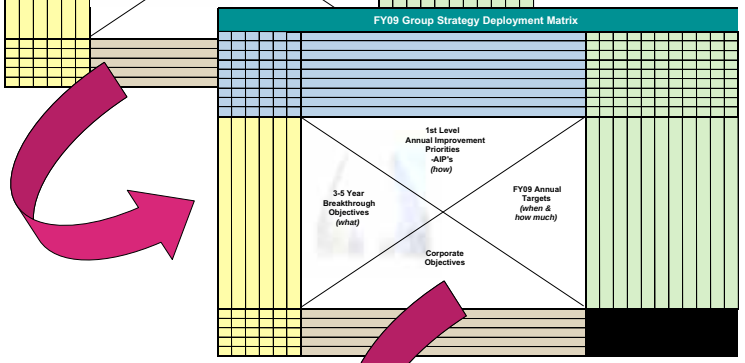
Site plan

VS analysis & prioritization

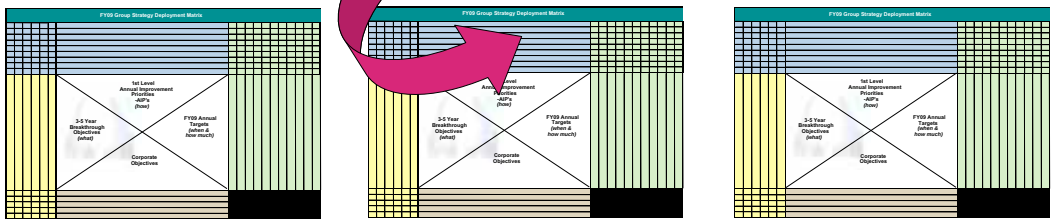
Team activities



Corporate SD matrix



Group SD matrix



Division SD matrices

Parker Aerospace

Supplier management: standardized & aligned

Supply chain strategy

A structured approach

Deploy supply chain management system

- Develop long-term relationships with key suppliers
- Emphasis on process stability and continuous improvement
  - Implement a lean plan to work with suppliers
  - Utilize the Supplier Excellence Alliance as a supplemental capability to bring lean to our supply base
- Develop supply chain capable of meeting performance and cost expectations
- Develop a “One Parker” standard process

Aerospace Group supply chain strategy

Corporate supply chain initiatives

Historical focus	**Tactical Performance** **Customer service / past due sales & receipts / DSI / PPM**			
People	**• Leadership development / skills assessments** **• Supply chain fundamentals - contract law / T&Cs and price/cost analysis**			
Process	**Internal lean**	**Spend management**	**Low-cost & offset sourcing**	**Risk mitigation external lean**
Group strategic process initiatives & future state focus	▪Standardization of best practices –PFEP –Kanban –E-systems ▪ PHConnect ▪ S&OP –Barcoding –Material handling –Demand management	▪ Common strategies – Decentralize execution ▪ Commodity councils – Direct material – Indirect material – Services – Transportation	▪ Coordinated strategy ▪ Regional focus – China – Mexico – India – Asia – Other ▪ Coordinated international participation plan	▪ Common assessment tools ▪ Tactical problem solving ▪ Rate-readiness assessments ▪ Lean enablement – Supplier coaching – SEA engagements – Supplier Kaizens
Metrics of success	▪ DSI ▪ L/T reduction	▪ Deflation ▪ PPI	▪ Deflation ▪ PPI ▪ Offset performance	▪ L/T reduction ▪ Supplier O/T ▪ Supplier PPM ▪ Div customer service & past due ▪ Kanban deployment
Info tech tools	• S&OP	• SIC Database	• PHConnect	• PHConnect / SQS
Organization	**•Supply chain structure / job descriptions** **• Major subcontracting**			
Communications	**Corporate / Group / Division Meetings / Sharepoint**			

Supply chain vision

Leveraging resource that is aligned with the business

Parker Aerospace

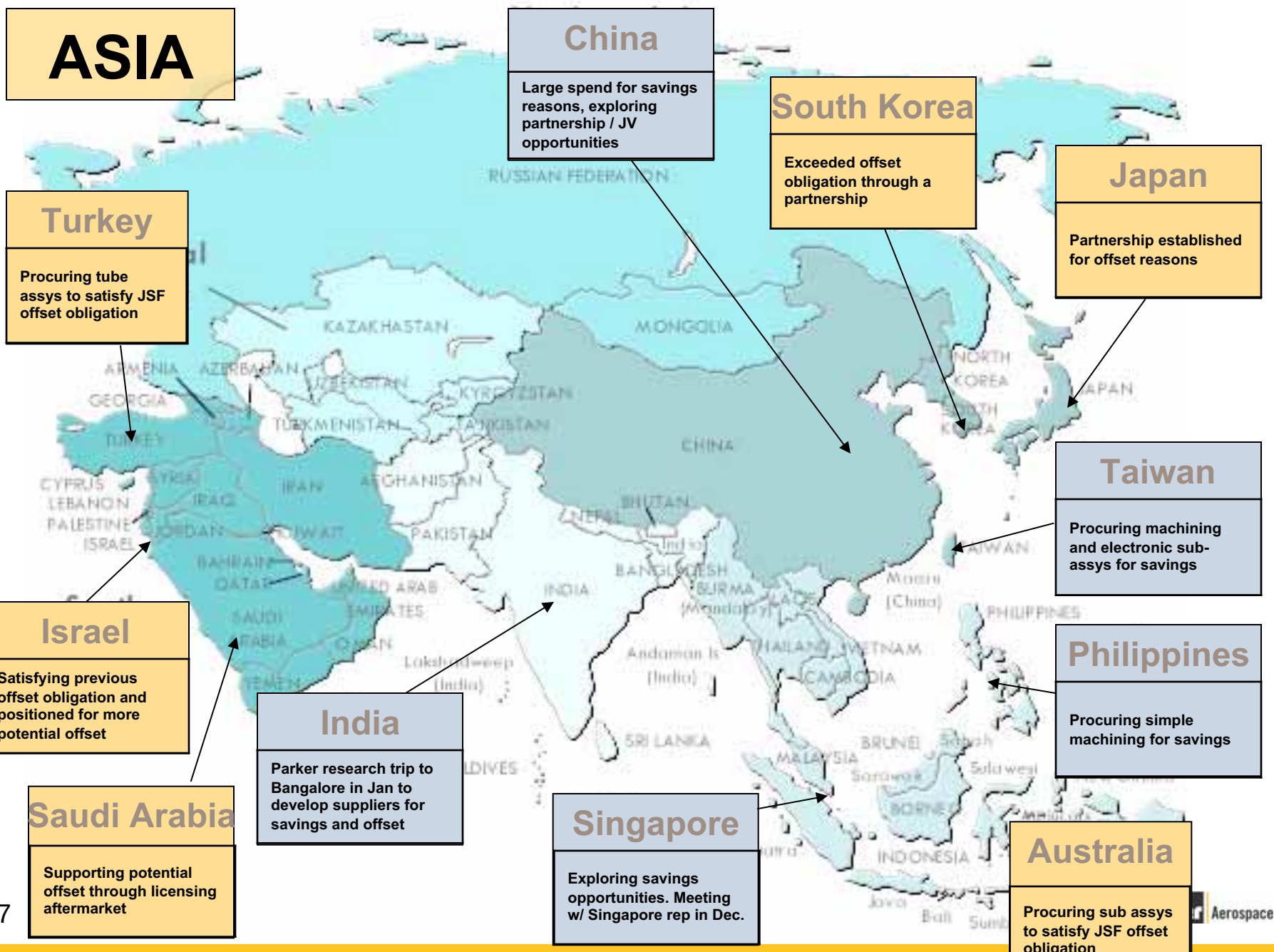
Global SWOT Analysis

Strengths and Weaknesses	Canada	China	Czech Rep	India	Mexico	Brazil	South Korea	Taiwan	Phillipines	Malaysia	Singapore
Labor rate	W	S	W	S	S	W	W	S	S	S	W
Aerospace manufacturing	S	S	S	W	W	S	S	S	W	W	S
Educated technical workforce	S	S	S	S	S	S	S	S	S	S	S
Protection of intellectual property	S	T	S	S	S	S	T	T	S	w	S
→ Surface treatment, special processes	S	S	S	W	W	W	S	S	W	S	S
Communications	S	W	S	S	S	S	W	W	S	W	S
Infrastructure	S	S	S	W	S	S	S	S	S	S	S
Logistics	S	W	S	W	S	S	S	S	S	S	S
→ In country raw material availability	S	W	S	W	W	W	W	W	W	W	S
Required mfg technologies available	S	S	S	S	S	S	S	S	S	S	S
Currency exchange rate	W	T	S	S	S	S	S	S	S	S	S
Parker presence in country	S	S	W	S	S	S	W	W	W	W	S
Supplier maintainence	S	S	W	W	S	S	S	S	S	S	S
NAFTA	S				S						
DFAR qualified	S			S							
THREATS											
Border regions					T						
Civil unrest		T		T			T			T	
Competition for available capacity		T									
Euro adoption in 5 years			T								
Potential price escalation		T		T	T						
Employee turnover					T						

Aerospace Group Global Sourcing Strategy

- Mexico
  - Improve utilization of existing assembly & test capability within Parker Maquila
  - SPD maximize utilization of Monterrey facility
  - Develop low-cost manufacturing / casting / processing sources
- China and S.E. Asia:
  - Grow existing suppliers and track individual supplier strategy progress
  - Monitor macro-economic indicators negative trends / inflation
  - Develop C919 partnerships
- India:
  - Explore for low cost savings opportunities
  - Satisfy military offset requirements with value sourcing
- Europe & others:
  - Hold key suppliers for strategic or offset reasons

ASIA



China

Large spend for savings reasons, exploring partnership / JV opportunities

South Korea

Exceeded offset obligation through a partnership

Japan

Partnership established for offset reasons

Turkey

Procuring tube assys to satisfy JSF offset obligation

Taiwan

Procuring machining and electronic sub-assys for savings

Israel

Satisfying previous offset obligation and positioned for more potential offset

Philippines

Procuring simple machining for savings

India

Parker research trip to Bangalore in Jan to develop suppliers for savings and offset

Saudi Arabia

Supporting potential offset through licensing aftermarket

Singapore

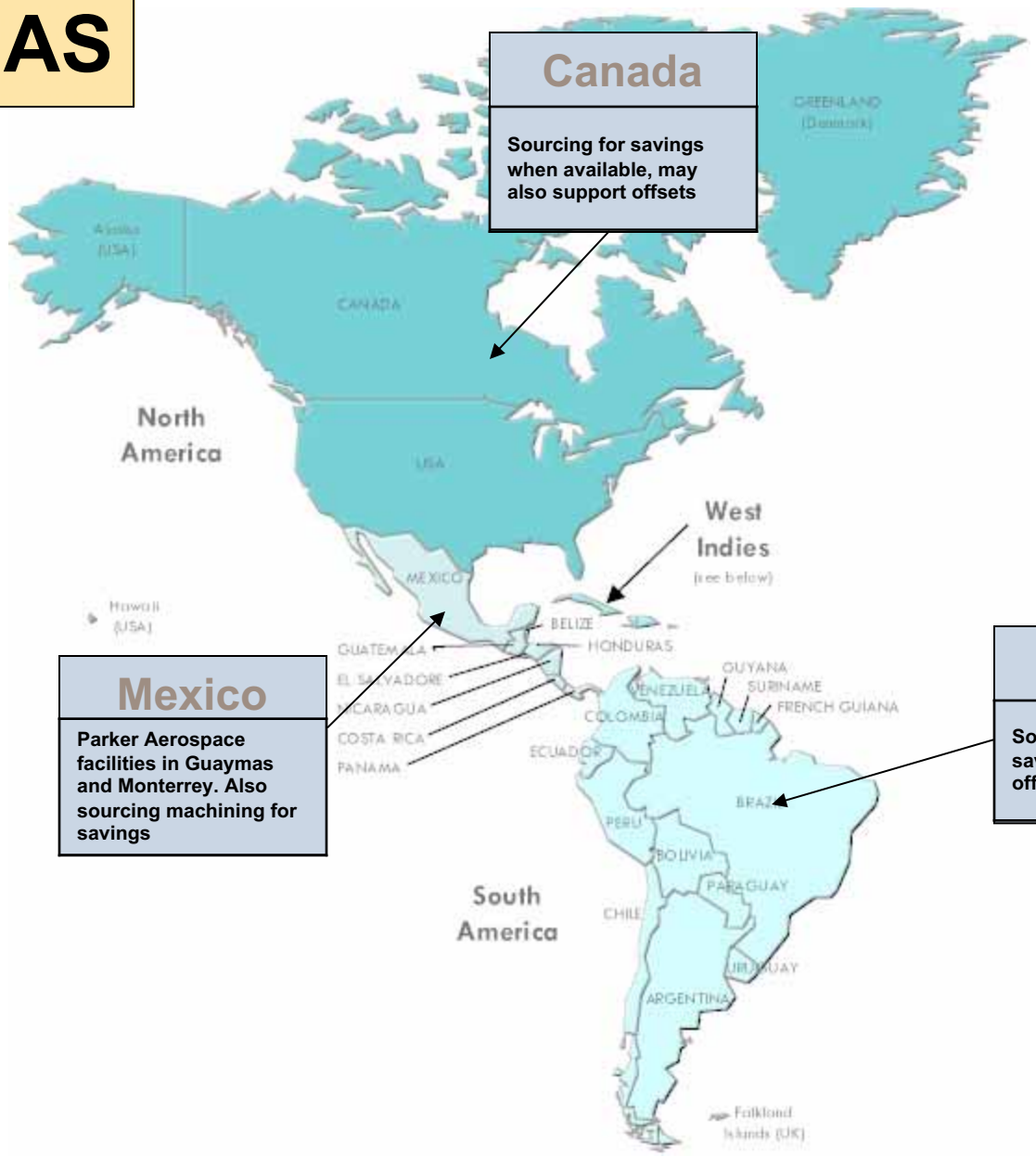
Exploring savings opportunities. Meeting w/ Singapore rep in Dec.

Australia

Procuring sub assys to satisfy JSF offset obligation

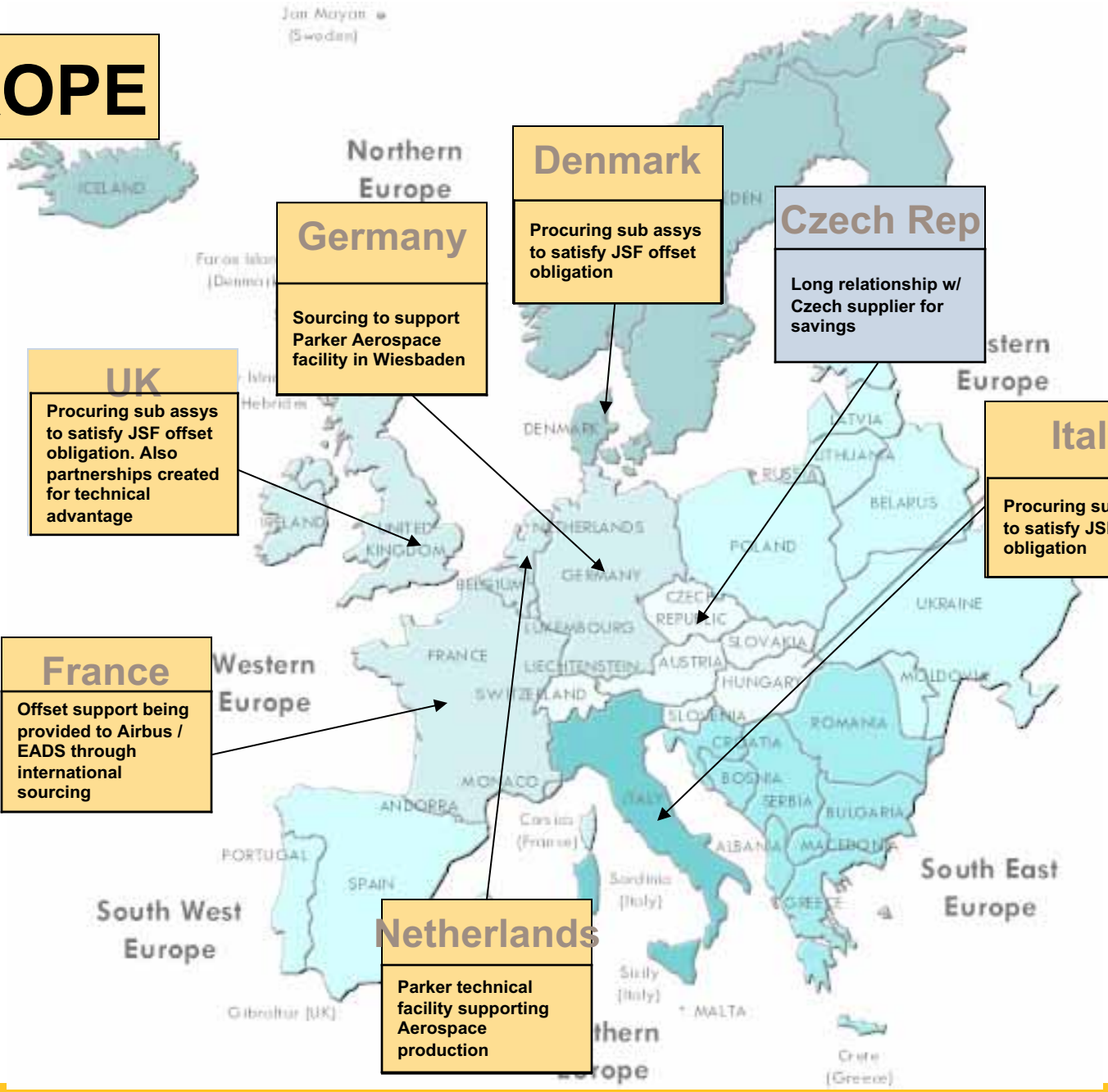
Aerospace

AMERICAS



Parker Aerospace

EUROPE



Denmark

Procuring sub assys to satisfy JSF offset obligation

Germany

Sourcing to support Parker Aerospace facility in Wiesbaden

Czech Rep

Long relationship w/ Czech supplier for savings

UK

Procuring sub assys to satisfy JSF offset obligation. Also partnerships created for technical advantage

Italy

Procuring sub assys to satisfy JSF offset obligation

France

Offset support being provided to Airbus / EADS through international sourcing

Netherlands

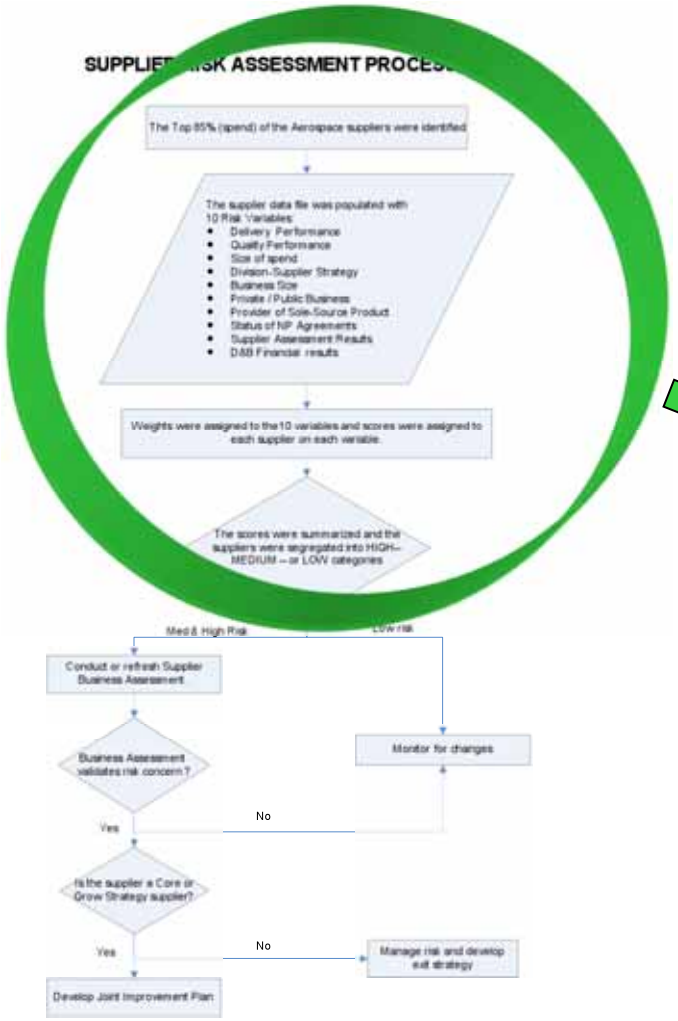
Parker technical facility supporting Aerospace production

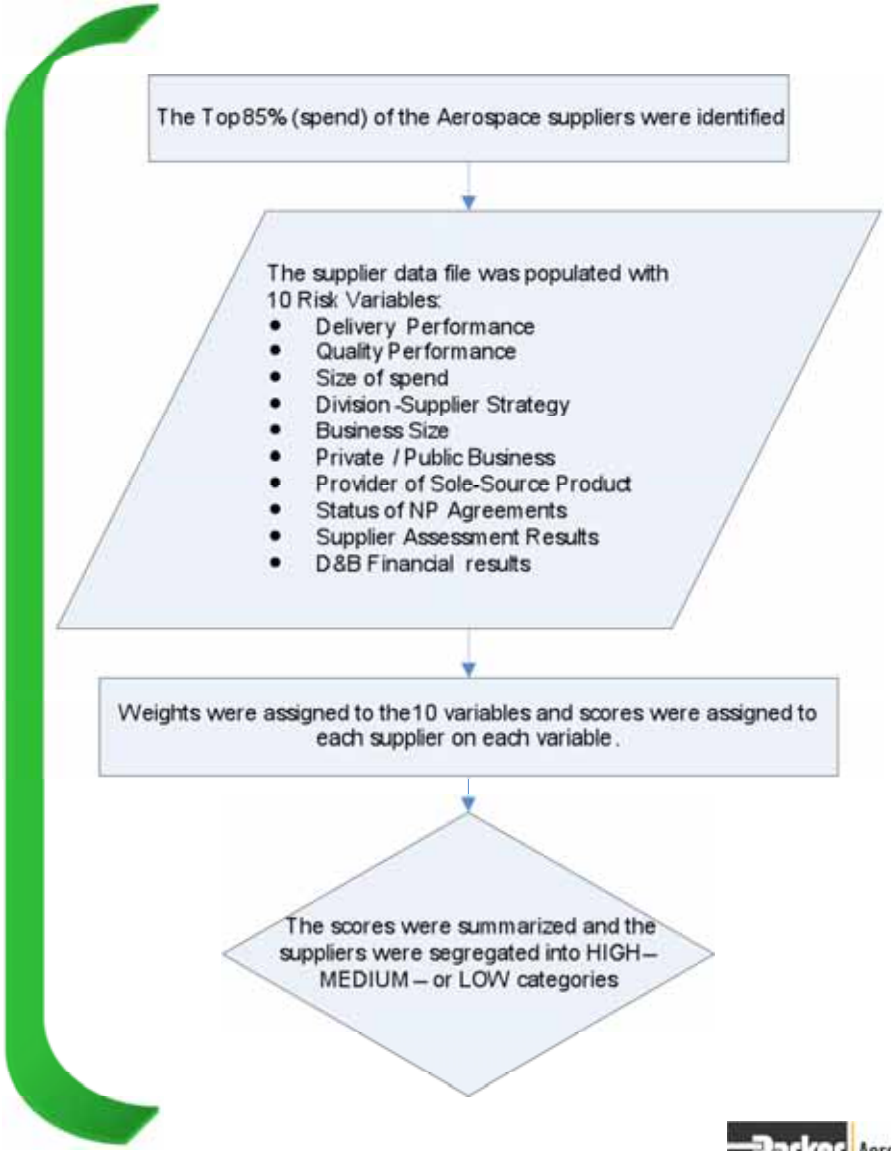
Parker Aerospace

Risk Management

- Top priorities –
  - 1) Understand and mitigate risk with source control suppliers
    - Develop and implement appropriate assessments
  - 2) Understand and mitigate risk with tier 1 partners
  - 3) Mitigate risk and leverage spend in top 25 suppliers
  - 4) Coordinate strategies for castings and forgings
  - 5) Quantify risks within balance of top 50% spend
  - 6) Revisit supplier strategy (4 box) for all machining suppliers

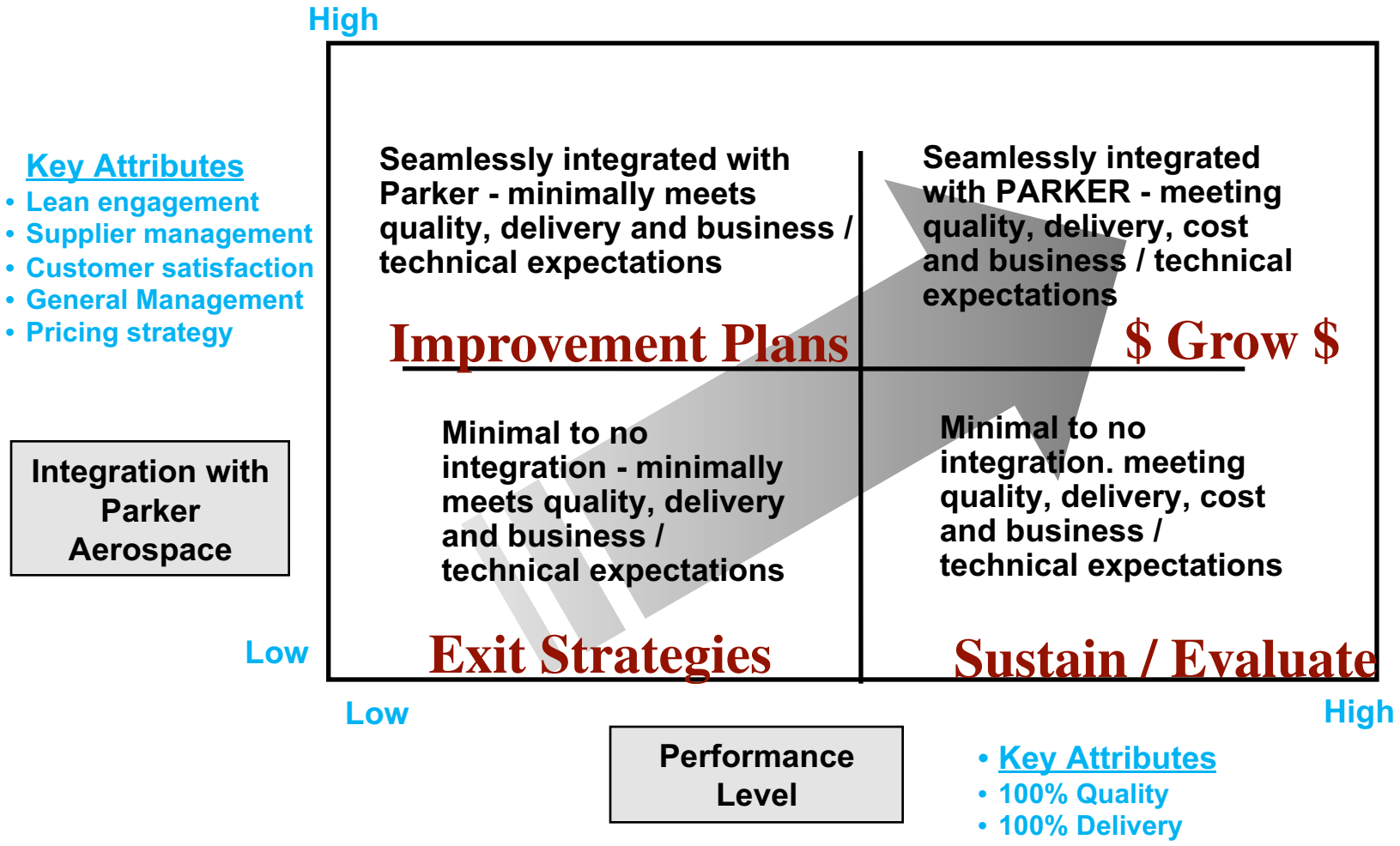
Risk Assessment – Process Flow





Parker Aerospace

Supplier development strategy



Supplier Risk Matrix

Division Name	Supplier Name	On LTA	Strategy	Bus Size	Private/ Public	Delivery	Quality	Sole Source	Risk Assessment Sum
ABEX		Yes	Grow	Small	Private	94.00%	6846	No	194
CSD		Yes	Grow	Small	Private	90.20%	0	No	230
CSD		Yes	Grow	Small	Private	98.10%	23447	No	236
ABEX		Yes	Grow	Small	Private	98.00%	1684	No	272
CSD		Yes	Grow	Small	Private	99.70%	5460	No	230
ABEX		Yes	Grow	Small	Private	99.00%	27027	No	230
CSD		Yes	Hold	Small	Private	94.80%	29401	No	170
ABEX		Yes	Grow	Small	Private	99.00%	2007	No	260
CSD		Yes	Hold	Small	Private	97.60%	543	No	272
CSD		Yes	Exit	Large	Public	67.55%	120291	No	162
CSD		Yes	Hold	Large	Public	81.68%	4200	No	228
AFD		Yes	Hold	Large	Public	86.11%	2494	Yes	162
ABEX		Yes	Grow	Large	Public	88.00%	36101	Yes	162
CSD		Yes	Improve	Large	Public	91.50%	2564	Yes	150
CSD		Yes	Grow	Large	Public	97.10%	0	Yes	258
ABEX		Yes	Hold	Large	Public	71.00%	35029	Yes	138
CSD		Yes	Grow	Large	Public	97.00%	565	No	306
AFD		Yes	Grow	Large	Public	94.82%	377	No	276
ABEX		No	Grow	Large	Public	98.00%	3331	No	284
ABEX		Yes	Hold	Small	Private	97.00%	33937	Yes	158
ABEX		Yes	Hold	Small	Private	99.00%	13905	No	206
ABEX		Yes	Grow	Small	Private	95.00%	41775	No	194
CSD		Yes	Hold	Small	Private	95.56%	12242	No	260
CSD		Yes	Grow	Large	Public	100.00%	0	Yes	258

Supplier Quality - RPPM

Fiscal Year	Gold Premier	Green Preferred	Yellow Marginal	Red Unacceptable
FY09 Baseline	50	1000	10,000	>10,000
FY10	50	500	5,000	>5,000
FY11	50	400	2,500	>2,500
FY12	50	300	1,250	>1,250

Supplier Quality - RPPM

- 480 Top Supplier
  - 145 have quality > 5,000 RPPM
  - 78 have quality >1,000 / < 5,000 RPPM
  - 69 sole source supplier > 1,000 RPPM
- AIP of 35% from FY09 – 3250 RPPM
  - Probable – 4,000 (approx 20%)

Supply Chain - Zero Defect Initiative

- Process based assessment performed to determine systemic opportunities:
  - Reviewed Quality escapes (NOE's), customer returns, A&T "turn backs" for last 9 months.
- Reviewed best practices and approaches used at each division.
  - Capitalize on practices that "never" allow certain system failures.
  - Aggregate into a single best practice procedure for Parker Aerospace
- Phase II - AS9100C used as checklist for broad system effectiveness review.

Supply Chain - Zero Defect Initiative

- Process control improvements
  - Aerospace wide adoption of Parker Production Approval Process (PPAP)
  - Substantially more rigorous version of First Article Inspection
  - Procedure written and in second round of reviews prior to release.

Supply Chain - Zero Defect Initiative

- "Work Transfer" and "Notification of Change"
  - Work Transfer
    - Work Transfer - Stage / Gate approach similar to the IAQG methodology.
      - Procedure and all associated templates written. In second round of review / pending release.
  - Notice of Change
    - Procedure currently being written based on FSD procedures, AS9016, and IAQG materials.

Next

- Phase II – AS9100C Broad Assessment
  - A number of areas identified to unify Parker processes to utilize best practices.
    - Material Verification
    - Purchased Product Verification
    - Supplier Risk Assessment
    - Supplier Selection, Improvement, Exit
    - Supplier Audit and Oversight
    - Preferred Supplier Program
  - Prioritization of additional processes in-process
    - Common standard work the utilized best practices and minimizes risk in every business process.

Parker Aerospace

Supply chain initiatives

- Aligning business objectives throughout the supply chain
- Committing to co-prosperity
- Building supplier problem solving skills
- Exchanging best practices
- Leveraging our business success
- Supply Chain Strategy that focuses on
  - Customer Service
  - Spend Management
  - Lean processes
  - Risk Mitigation

Why are we all here?

Thank You!