

**Pratt & Whitney**

A United Technologies Company

# Pratt & Whitney Waste Minimization

June 27, 2017

CT DEEP  
Solid Waste Advisory Committee

Dave Smith  
Sr. Director, EH&S and Sustainability

# PW CONNECTICUT FOOTPRINT

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## Headquarters, Manufacturing, Assembly & Test



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East Hartford  
4.4M square feet  
8,569 employees



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Middletown  
1.9M square feet  
2,600 employees

# PW CURRENT STATE

Positioned  
for growth

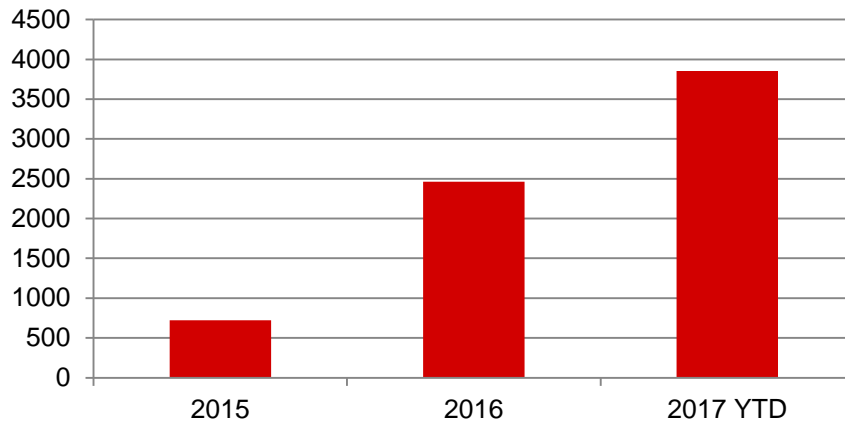


Focused  
on our core



Industry leading technologies...positioned for sustainable long term growth

## Cumulative 3-yr. CT Hiring



## East Hartford Headquarters

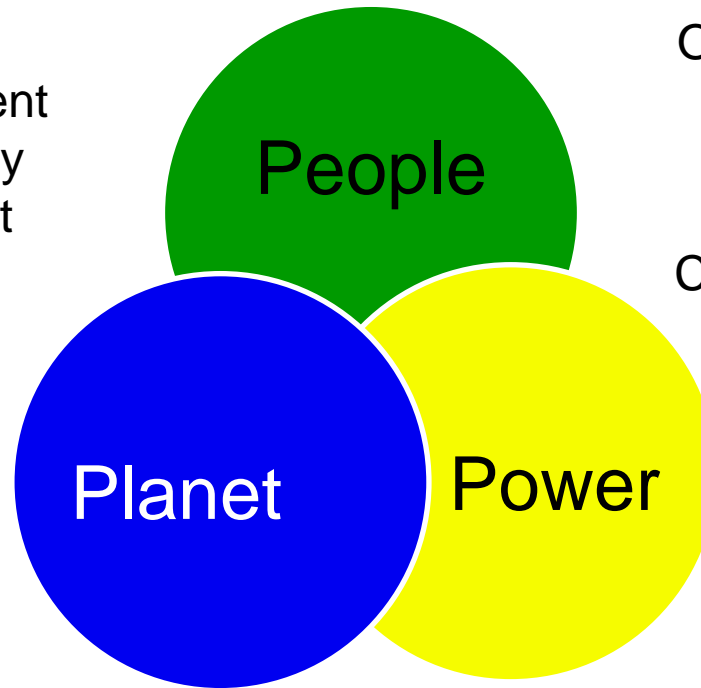


LEED Gold

# SUSTAINABILITY DRIVERS

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Culture  
Community Commitment  
HR Recruitment Priority  
Employee engagement



Operation Optimization  
Efficiency  
Market Expectation  
Corporate Reputation  
Competitive Advantage

Leadership  
Global Steward

# LEADERSHIP AND CULTURE

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“The whole future of our company is really going to be based on two things; innovation and sustainability.”

- Greg Hayes | Chairman and CEO, UTC

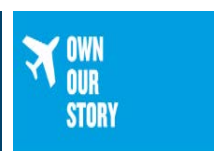
“Sustainable operations are good for employees, the environment and business... Whether it's shrinking our factories' footprint, developing innovative technologies or providing quieter, cleaner and more efficient products, we are committed to growing our company sustainably.”

- Bob Leduc | President, P&W



## **EH&S Policy:**

Pratt & Whitney will not be satisfied until its workplace is safe from hazards, its employees are injury-free, its products and services are safe, and its commitment and record in compliance, sustainability, and protection of the natural environment are unmatched.



# 2020 SUSTAINABILITY GOALS

## Value stream engagement



# ALIGNMENT, ENGAGEMENT, COMMITMENT

## Executive Sustainability Council

Designed to drive change throughout organization



Products &  
Services

Factory/Facility

Supply Chain

Community  
Outreach

## Green Factory Teams

P2/Sustainability  
Teams

Site EHS Council

Site GMs

# WASTE HIERARCHY IN PRACTICE

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## **Eliminating most hazardous**

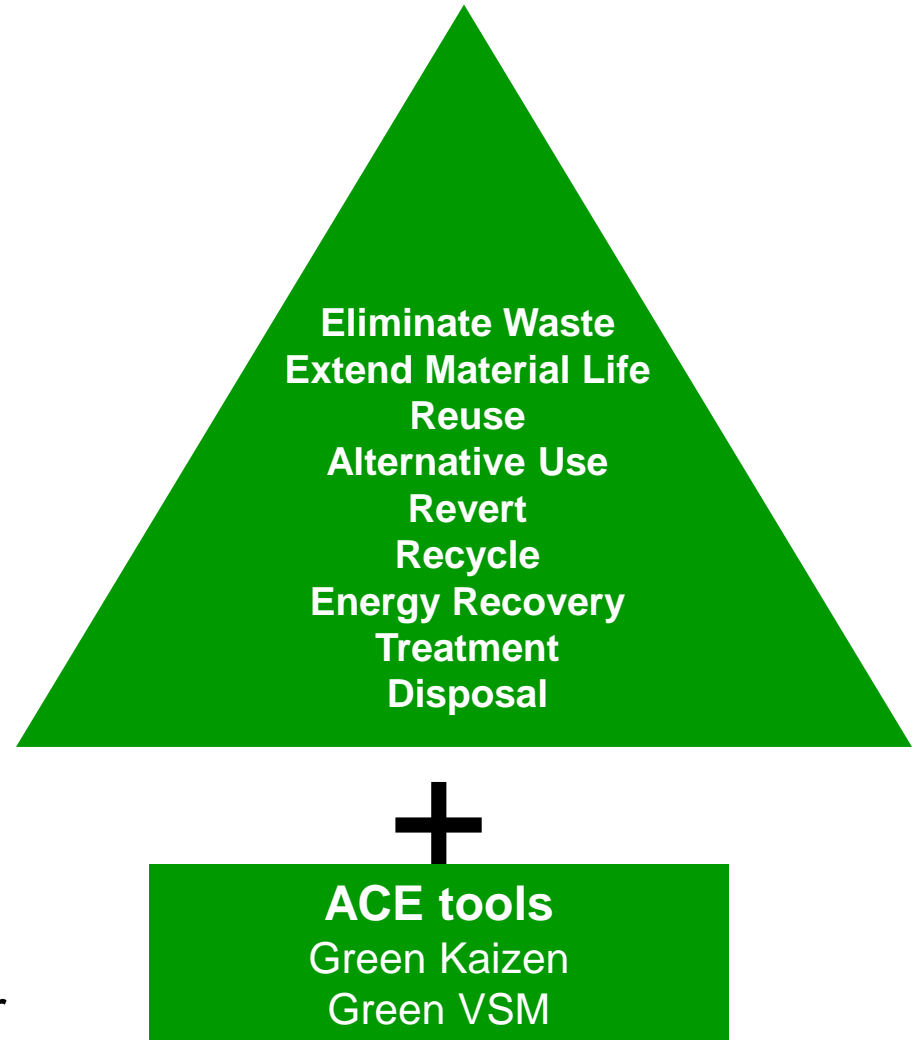
Cyanide Plating & Hexavalent  
Chromium Anodize  
Cadmium / Lead  
Perchloroethylene maskant  
Chlorinated Solvents  
Non-Chlorinated Solvents

## **Extending Material Life**

Acids and Alkalis  
Coolants

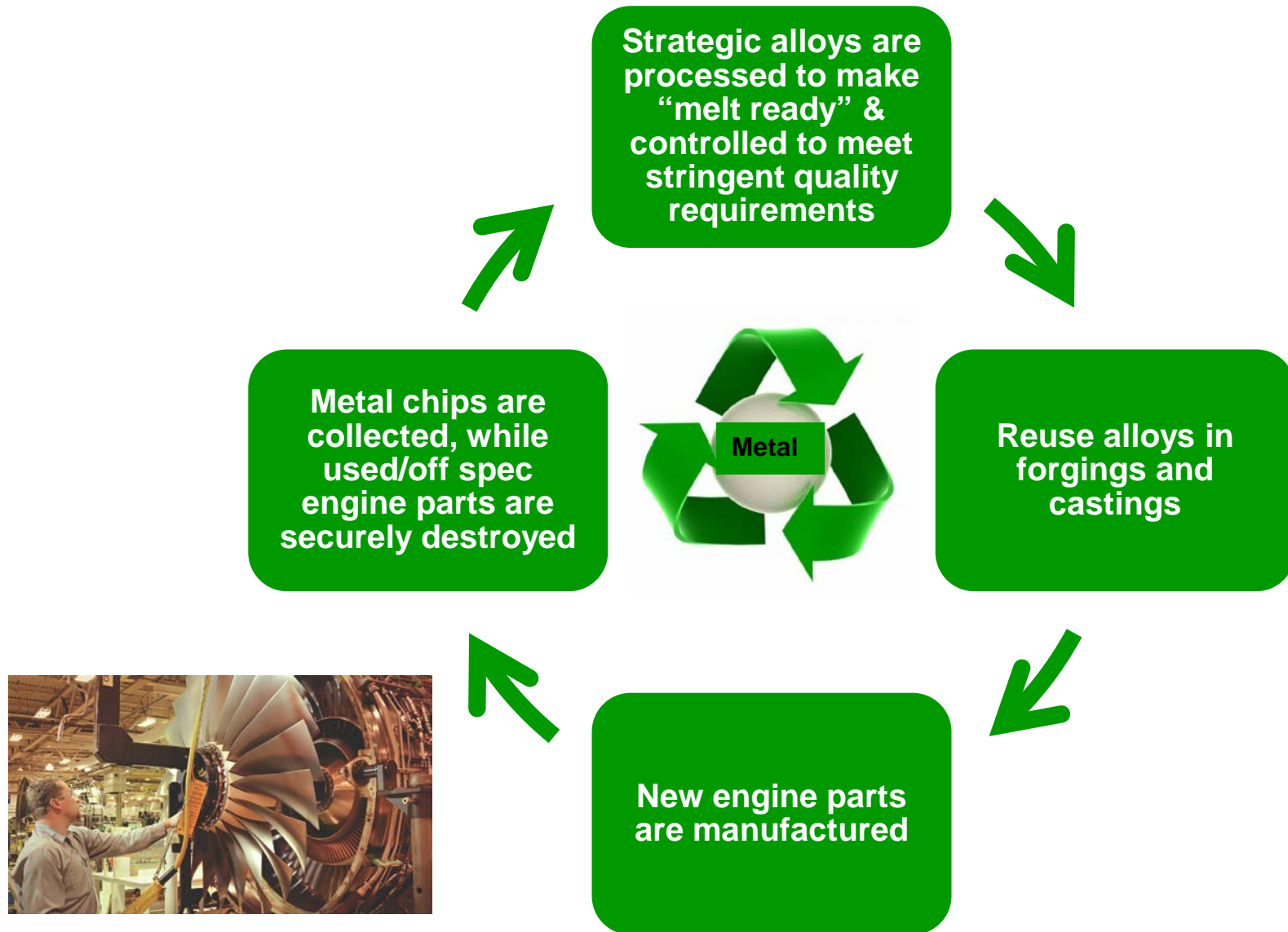
## **Reuse**

Wood –pallets / boxes  
Waste containers  
Virgin Chemical Containers  
Process Solutions – FPI Rinsewater  
Reuse



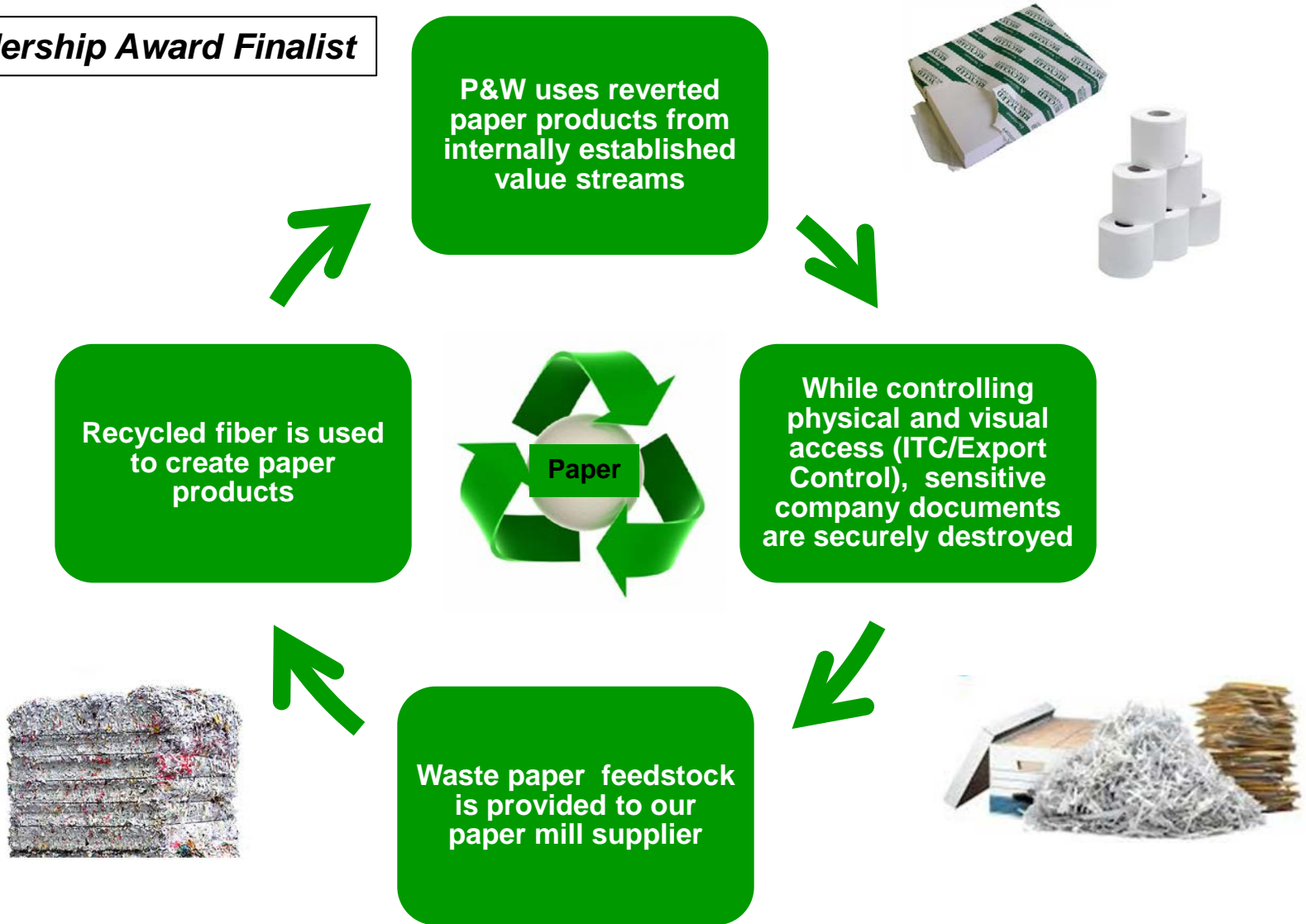


# AEROSPACE ALLOY REVERT



# ITC/EXPORT CONTROL & PAPER REVERT

*PW Leadership Award Finalist*



# ITC/EXPORT CONTROL & PAPER REVERT

## Participating UTC Sites – CONNOPs, UTAS, PWNB

~600 Secure Locked Bins  
picked up weekly (CT)

610 cases of tissue and  
towel products are delivered  
monthly to P&W

~15,782 lbs of recycled fiber  
creates 610 cases



### Success

Monthly environmental savings realized by  
revert process vs. using virgin fibers:

- 55,237 gal of water
- 32,353 kw of energy
- 2,999 gal of oil
- 473 lbs of air pollutants
- 24 cubic yards of landfill

YTD 2017 → 40,000 lbs/mo processed

Expected 2017 → 500K lbs

# CONTAINER & PALLET REDUCTION

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Reusable parts packaging examples:

“Pizza Box” Packaging, Used for 182 part numbers across 8 engines

“Large Ring” Containers formed to shape of part

Removable Cavity Trays

Kit Carts - Modular Configured Trays and Back Panels

# REUSE AND RECYCLE

## Recycled Value Streams

Wood	Metal Alloys
Paper	Abrasive Medias
Cardboard	Plasma Spray Powders



## Success

### 2016

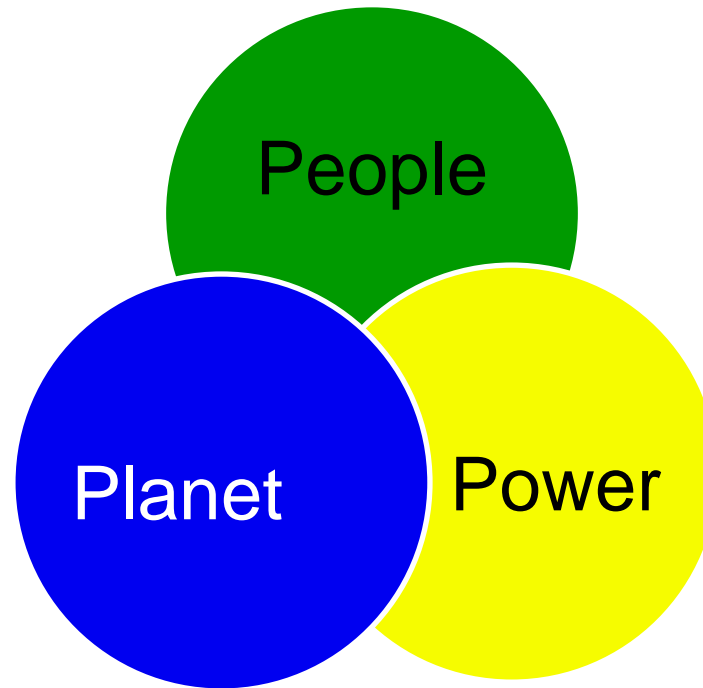
120,000 lbs. – Reused pallets  
880,000 lbs. – Wood Recycled

### 2017

Reduced Recycling Costs in Middletown  
Reduced Purchasing in North Berwick

# SUSTAINABILITY & WASTE MINIMIZATION

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Sustainability leadership

Focus on hierarchy for elimination & minimization

Use of ACE tools

Measure → Act

# THANK YOU

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## P&W Benchmarking Contacts:

Russell Ward – East Hartford - 860-565-4050  
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Terry Robinson – East Hartford - 860-565-0176