



# Session G: Minimizing materials that contribute to solid waste

**Raytheon Company**

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# Overview

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- Raytheon Company
- Corporate Responsibility
- Enterprise Sustainability Goals
- Resource Management Partnerships
- TRUE Zero Waste Certification
- Zero Waste Program
- Sustainability Initiatives at Raytheon

# Raytheon Company



**ENGINEERING**  
**A SAFER WORLD**

## **OUR VISION**

ONE GLOBAL TEAM CREATING TRUSTED, INNOVATIVE SOLUTIONS TO MAKE THE WORLD A SAFER PLACE.

- Raytheon Company is a technology and innovation leader specializing in defense, civil government and cybersecurity solutions.
- Provides state-of-the-art solutions and support services to customers in 80 nations
- Headquartered in Waltham, Massachusetts
- 67,000 employees worldwide

# Corporate Responsibility

**Raytheon**

ENGINEERING A SAFER WORLD

2017 Corporate Responsibility Custom Report



In 2016, Raytheon established 14 sustainability goals for 2020 to keep us focused on engineering a sustainable future



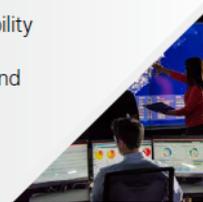
**Raytheon Sustainability**

We built our sustainability program on four guiding pillars:

## FOUR PILLARS OF RAYTHEON SUSTAINABILITY

### INTEGRATE

principles of sustainability into the design of our products, processes and services through their entire life cycle.



### OPTIMIZE

environmental performance throughout the value chain by engaging in responsible resource management.



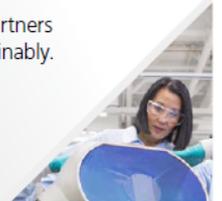
### COLLABORATE

with suppliers, customers, industry, academia and communities to develop and deploy sustainable solutions.



### EMPOWER

our employees and partners to work and live sustainably.



# Enterprise Sustainability Goals

## 2020 Sustainability Goals



### OPERATIONS

Energy Consumption



Water Use



### SUPPLY CHAIN

Supplier Sustainability Assessment



Supplier Sustainability Commitment



Eco-Friendly Procurement: Tech Data Packages



### EHSS

Solid Waste Diversion Rate



Zero Waste Certification



Renewable Energy



Greenhouse Gas Emissions



Supplier Packaging



### ENGINEERING

Product Material Content



Materials of Concern in Design



### IT

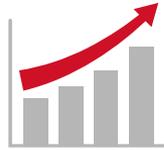
Next-Gen Virtual Collaboration Environment



Enterprise Data Centers: Advance Energy Mgmt.



# Integrated Defense Systems (IDS)



**2018 REVENUE**  
\$6.18 BILLION



**HEADQUARTERS**  
TEWKSBURY, MASS.



**ENGINEERS**  
6,753



**GLOBAL EMPLOYEES**  
MORE THAN 14,500



**EMPLOYEE RESOURCE GROUP**  
4,768 MEMBERS



**MAJOR SITES**  
31 WORLDWIDE



**NEW HIRES**  
1,476

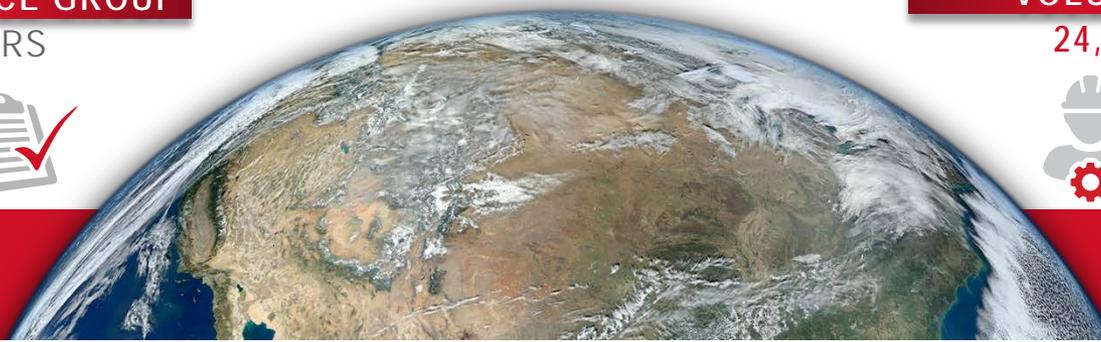


**VOLUNTEER HOURS**  
24,000 LOGGED

**CONTRACTS**  
1,286



**SUPPLIERS**  
10,000+



# Resource Management Partnerships

- Raytheon’s resource management program is a strategy focused on preventing the generation of waste; and where this is not possible, to recycle or reuse these materials.
- Success of this program depends on strong partnerships



*“... The successful RM Supplier will provide basic container service, hauling, and processing/marketing/disposal (which may be sub-contracted), in addition to value-added services that improve Raytheon’s resource efficiency (e.g., waste reduction, reuse, increased recycling) beyond traditional waste and recycling hauling.”*

# Zero Waste Journey

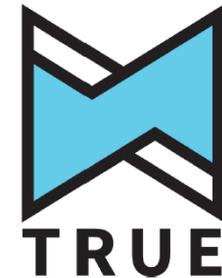
- 1998: Raytheon started its recycling program
- 2005: Resource Management Contract with E.L. Harvey
  - Structured program allowing increased focus on waste reduction, reuse and recycle
  - Shared responsibility between Raytheon and E.L. Harvey
  - Incentivized to reduce waste volumes and costs
  - Additional commodities added (e.g. composting, wood, scrap metal, construction and demolition)
- 2009: "Serving Up Sustainability" program developed with the goal to eliminate Polystyrene, promote reusable dining ware & supplement with compostables
- 2014: Electronic Waste Management Contract with ERI
- 2014: Initiated zero waste certification program



**Strong partnerships are critical for a successful zero waste program**

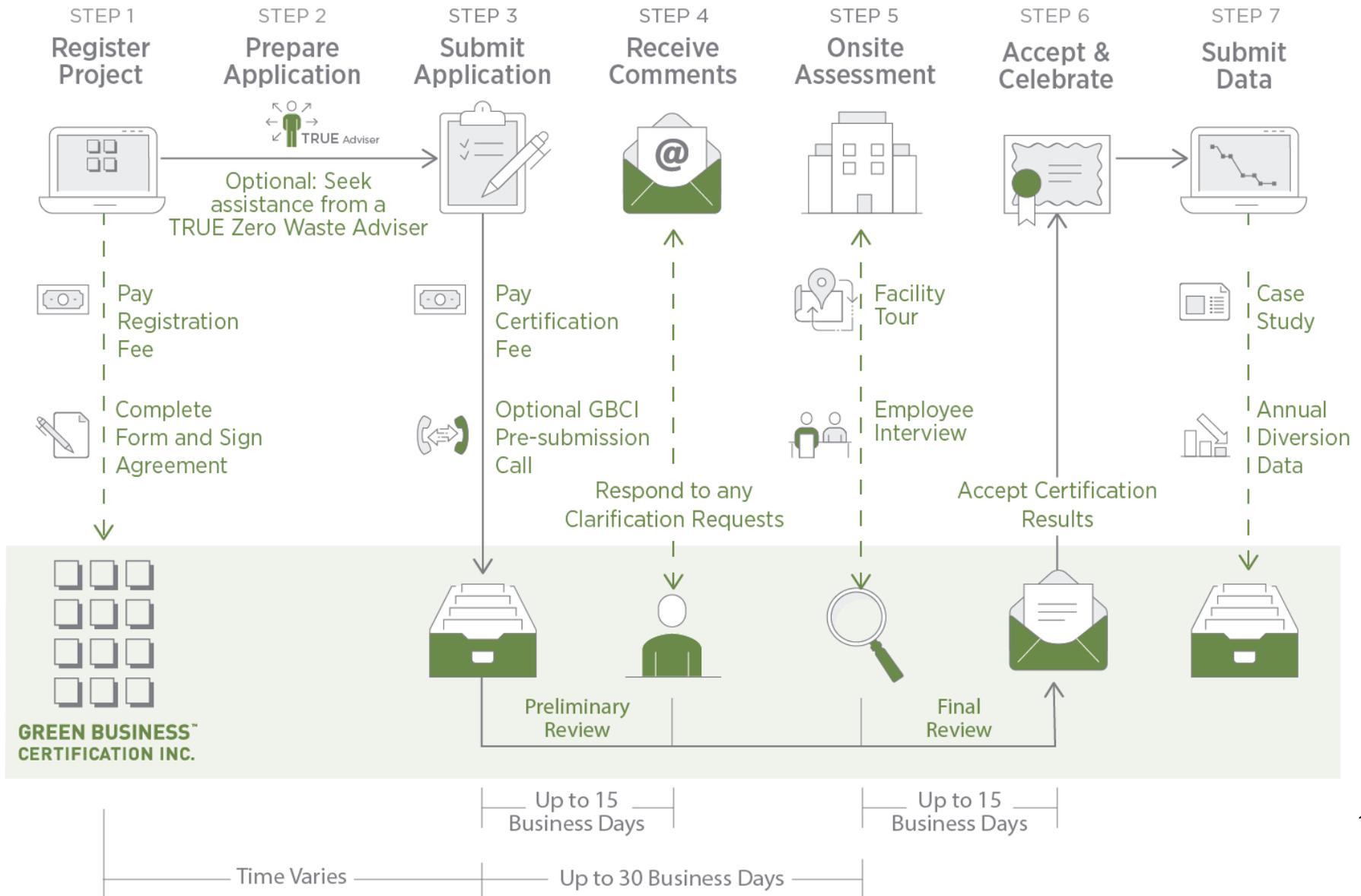
# TRUE Zero Waste Certification

- **TRUE (Total Resource Use and Efficiency) Zero Waste certification**
  - used by facilities to define, pursue and achieve their zero waste goals, cutting their carbon footprint and supporting public health
- Created in 2013 by the U.S. Zero Waste Business Council
- Currently administered by the Green Business Certification Inc. (GBCI) as of November 1, 2016
- TRUE Zero Waste certification requires:
  - **Zero waste policy** in place
  - **90% or greater waste diversion** 
  - Submit **waste diversion data**



$$\text{Diversion Rate} = \frac{\text{Materials diverted from landfill, incineration (WTE), and environment}}{\text{Total Waste Generated}}$$

# TRUE Certification Process



# Raytheon TRUE Goals

- 11 TRUE Zero Waste certified Sites

- 2014: Tewksbury and Waltham MA
- 2015: Billerica, Sudbury, Marlborough, and Woburn MA
- 2017: Dallas TX
- 2018: Cambridge MA, Camden AR, El Segundo CA, and Portsmouth RI



- Raytheon goal to certify 20 TRUE sites by 2020!

- 2019: 5 Sites scheduled for certification
- 2020: 5 Sites scheduled for certification

## CERTIFICATION LEVELS

**CERTIFIED:** 31-37 points    **SILVER:** 38-45 points    **GOLD:** 46-63 points    **PLATINUM:** 64-81 points

## OVERVIEW OF CATEGORIES & POINTS

REDESIGN	4	LEADERSHIP	6
REDUCE	7	TRAINING	8
REUSE	7	ZERO WASTE ANALYSIS	5
COMPOST (RE-EARTH)	7	UPSTREAM MANAGEMENT	4
RECYCLE	3	HAZARDOUS WASTE PREVENTION	5
ZERO WASTE REPORTING	4	CLOSED LOOP SYSTEM	4
DIVERSION (MIN 90%)	5	INNOVATION	3
ZERO WASTE PURCHASING	9	<b>TOTAL POINTS</b>	<b>81</b>

## Zero Waste Partnership

### Zerowaste



MISSION:  
MAKE SAFETY  
OUR BUSINESS



- The vast majority of waste from Raytheon is sent out as either **Compost** or **Recycle**
- **Recycle** includes paper, **cardboard**, plastic, glass and metal
- **Compost** includes food waste, paper towels, napkins and most disposable “to go” containers from Dining Centers
- ***When in doubt put materials into the RECYCLE bin***



**Do your part by disposing waste into the proper corresponding labeled collection container**

# Zero Office Waste

## When in Doubt, Recycle!

Help Raytheon in its pursuit of zero waste. It is the right thing to do and it's sustainable. New labels were made in support of Raytheon's *Zero Office Waste (ZOWe)* program to help you do the right thing.



No more confusion, just two waste streams – Compost or Recycle. Take a second to read the labels and when in doubt, recycle!

# Dining Center Partnership



- Dining ware (e.g. cups, lids) substituted for reusable, compostable, and recyclable
- Labels “**I’m Compostable**” and “**I’m Recyclable**” help employees identify how to properly dispose of non-reusable dining ware



# Water Bottle Refill Station



- Traditional water fountains and/or large bottled water dispensers replaced with filtered water bottle refill stations
- Reduces trash from single use drinking cups used with filtered water bottle refill station
- Reduces plastic from single use disposable bottles

# Reusable Pallets



- Green totes used for interoffice moves replaced cardboard boxes

- Black pallets used to ship electronic waste to ERI
  - Replaced cardboard boxes, shrink wrap, and wooden pallets
  - Pallets are returned to the Site for reuse
  - ERI provides solid waste metrics of weight of recycled electronic waste and numbers of pallets reused



# Reusable Pallets



- Reduced need for new wooden pallets
- Designated areas for reusable pallets

# Reusable ESD Cloths



- Used to protect electronics that are in the process of being tested and manufactured
- Reusable electrostatic discharge (ESD) cloths replace single use disposable ESD foils
- ESD cloths can be laundered and reused multiple times

# Reusable Transport Containers



- Custom made transport containers for customer deliverable items
  - Durable, engineered metal shipping containers with built-in support strutting and cribbing designed specifically for certain product lines
  - Ensures maximum shipping integrity without employing wasteful packaging cushioning or supports (e.g. "packing peanuts" or disposable blocking)



# Recycle Styrofoam Product Containers



- Styrofoam product containers were previously disposed in the trash
  - Large and bulky
- Worked with supplier to send back containers for recycling
- Waste diverted from trash
- Collect recycling waste metrics

# Reuse Shipping Containers



- Refrigerated chemicals are shipped in corrugated boxes with Styrofoam molded inserts
- Boxes are returned to vendor for reuse
- Helps reduce new packaging materials
- Waste diverted from trash
- Collect reuse waste metrics

# Work with vendors to reduce packaging



- Staples has implemented a “Smart-size Packaging” Program that produces customized packaging tailored to each order
- Raytheon provides feedback to Staples to improve the “Smart-size Packaging” Program

**STAPLES®**

## The Problem: Customers don't like wasteful packaging

Staples' number one customer complaint used to be the wasteful amount of packaging they shipped their products in. Looking for solutions, Staples set a goal to reduce their packaging by 20% by 2020.

## The Solution: Smart-size packaging

Staples, in collaboration with Packsize International and its On Demand Packaging® technology, implemented a “Smart-size Packaging Program” in 2012 that produces customized packaging tailored to each order. The result? A better customer experience, improved supply chain sustainability, and efficiency with every shipment.

**Questions?**