

Session G: Minimizing materials that contribute to solid waste

Raytheon Company

Irina Calante & Mary Strzempko

April 4, 2019

Overview

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

Raytheon Company



OUR VISION

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

**ENGINEERING
A SAFER WORLD**

- 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

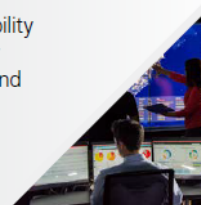
**Raytheon
Sustainability**

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.



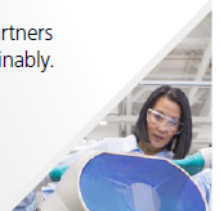
COLLABORATE

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

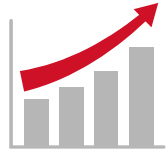
Next-Gen Virtual Collaboration Environment



Enterprise Data Centers: Advance Energy Mgmt.



Integrated Defense Systems (IDS)



2018 REVENUE
\$6.18 BILLION



EMPLOYEE RESOURCE GROUP
4,768 MEMBERS



HEADQUARTERS
TEWKSBURY, MASS.



MAJOR SITES
31 WORLDWIDE



ENGINEERS
6,753



NEW HIRES
1,476



GLOBAL EMPLOYEES
MORE THAN 14,500

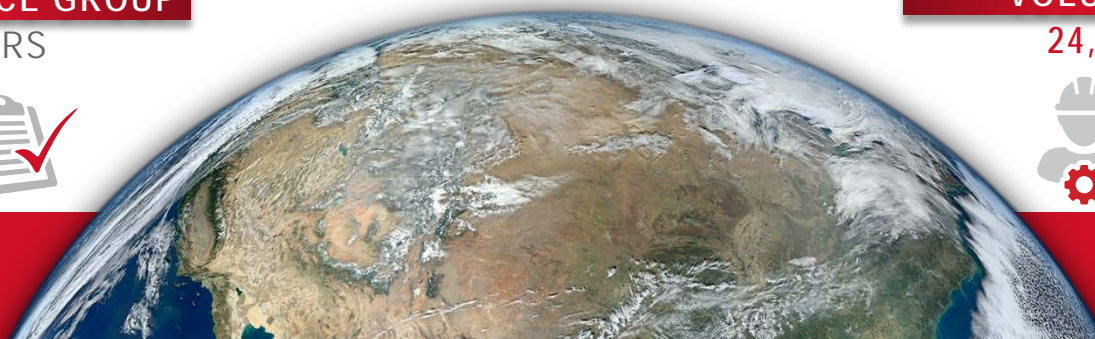


VOLUNTEER HOURS
24,000 LOGGED

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

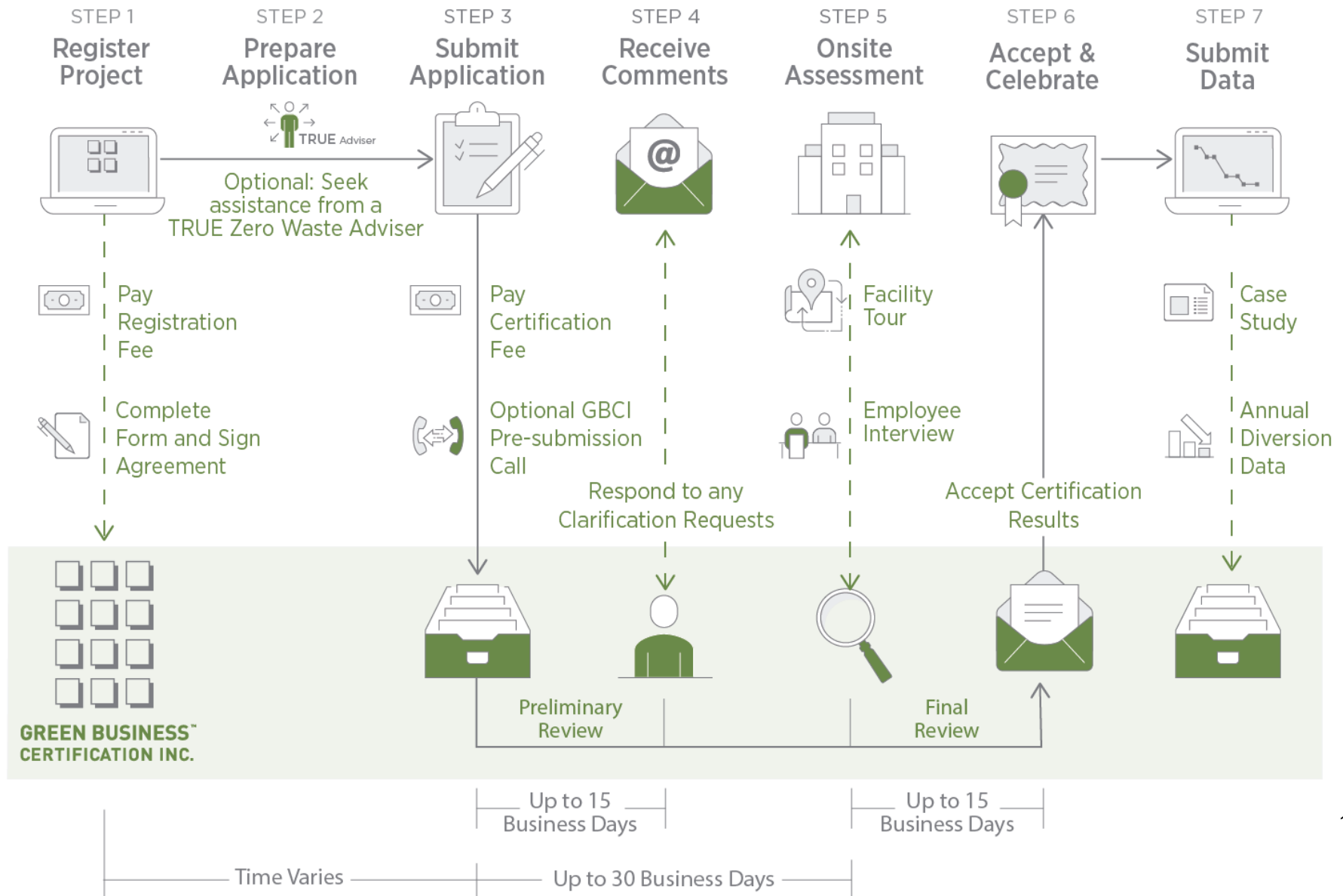
TRUE Zero Waste Certification

- **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	TOTAL POINTS	81

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?