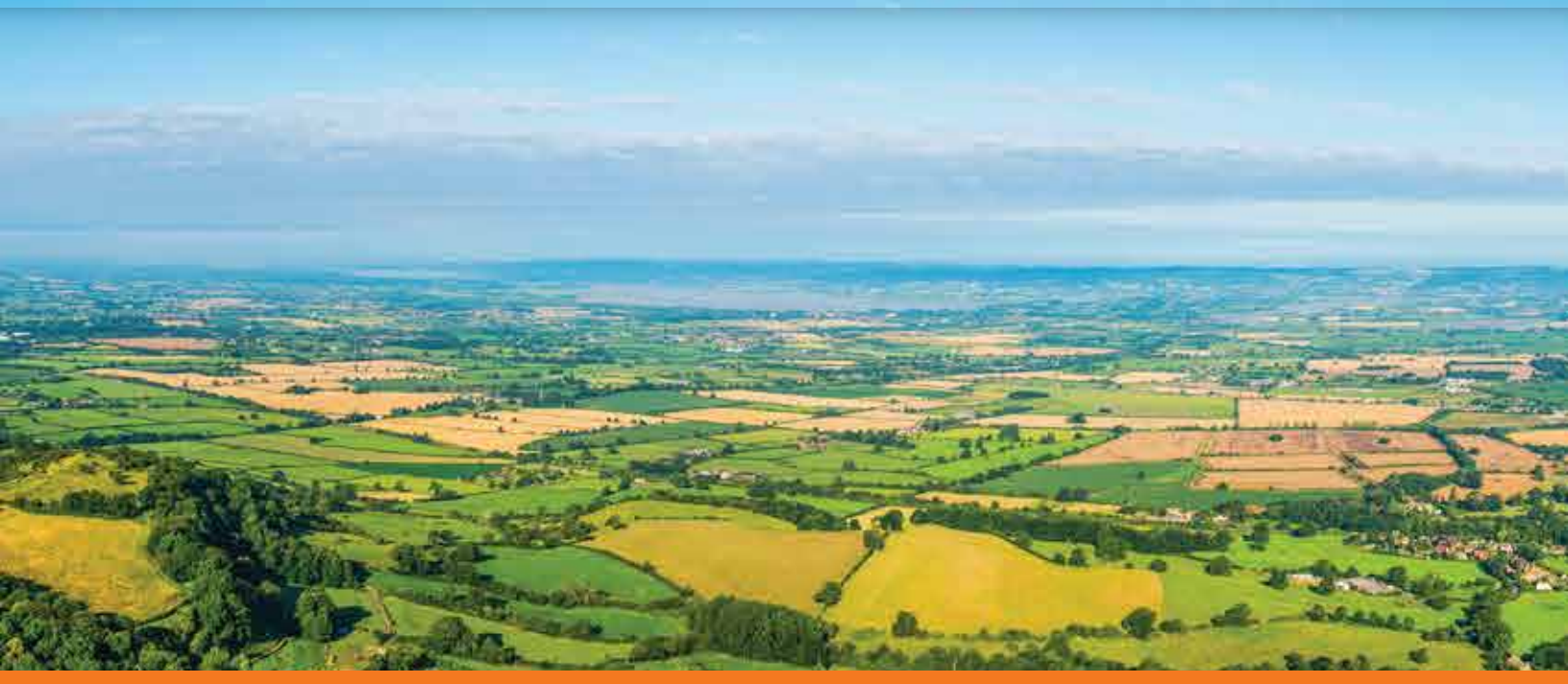
UTC Aerospace Systems

2016 Sustainability Report

All over this big beautiful blue planet, our colleagues are preserving mother Earth every day using innovation and perspiration. And as a corporate citizen, we are constantly innovating to use less and produce more. We're shaping the future of aerospace with less water, less fossil fuel and less raw material.

Here's a snapshot of where we are today…

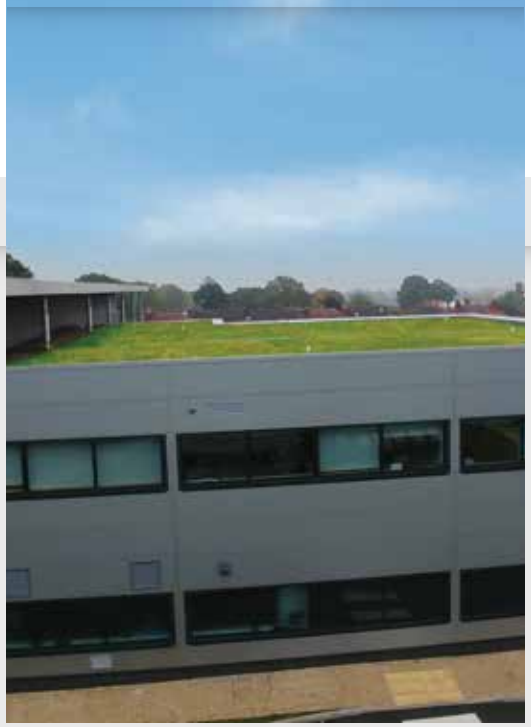


Taking the "LEED" in Green

We're proud to say that several of our sites feature LEED-certified (Leadership in Energy & Environmental Design) buildings! Recognized through the U.S. Green Building Council, LEED buildings are rated Platinum, Gold, Silver or Certified, according to assessments in eight categories:

- Location and transportation
- Sustainable sites
- Water efficiency
- Energy and atmosphere
- Materials and resources
- Indoor environmental quality
- Innovation
- Regional priority

Malvern, UK

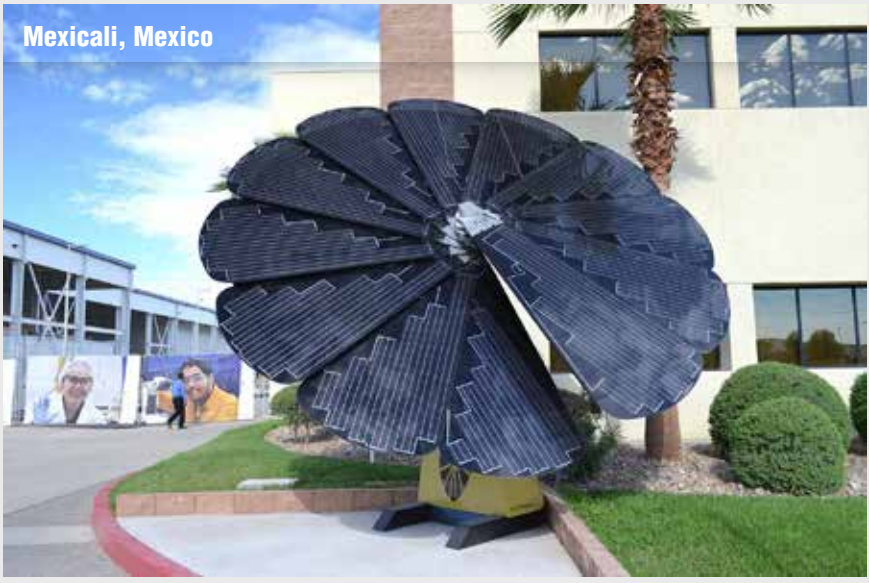


HERE'S A PEEK INTO TWO OF OUR GREEN BUILDINGS:

Our new ISR site in Malvern, UK, meets LEED certification requirements with a design that includes:

- A green roof that provides habitat for wildlife, without needing outside irrigation (in fact, none of the site's landscaping requires additional water!)
- 28% more energy efficiency than its previous building
- 100% FSC-certified (Forest Stewardship Council) wood
- Low-flow fixtures that use up to 30% less water

Mexicali, Mexico



Aerostructures' composite bonding facility in Mexicali, Mexico, a LEED Gold building, is conserving precious resources:

- 47% reduction in the use of potable water through efficient, low-consumption equipment and rainwater harvesting
- 100% reduction in irrigation water through landscape design
- 18% higher efficiency compared to buildings of similar characteristics
- 88% of the waste generated during construction went to recycling
- 100% of building products meet volatile organic compounds limits

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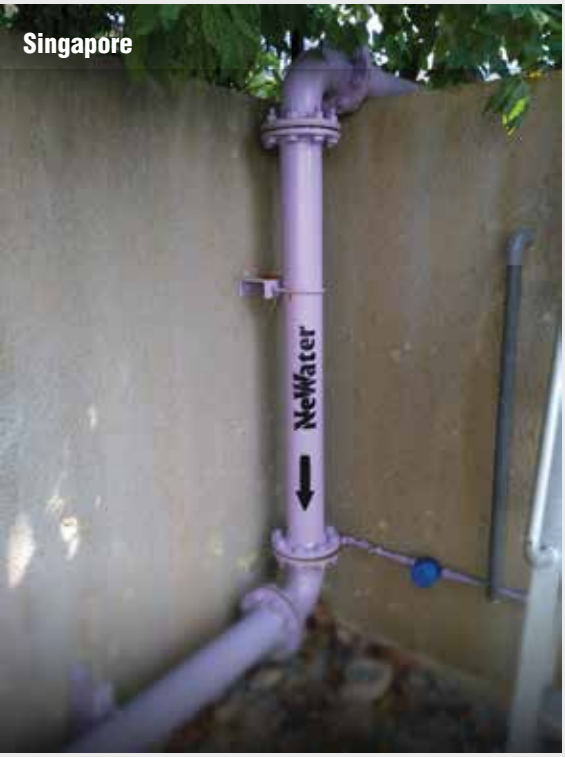


Singapore

Today, UTC requires all new buildings to meet LEED-certified requirements – in fact, we have three projects up and coming in 2018-19, including two in Poland and one in Foley, Alabama. And we're continually upgrading and making changes at existing facilities to improve their energy efficiency and environmental features. It's our goal to make every facility as energy-efficient and environmentally sensitive as we can.

For example, our Singapore Operations sites are working to reduce, reuse, and recycle every drop of water: They are connected to NEWater, a water reclamation system – reducing virgin water usage by 11 million gallons annually!

Did you know?

Changing an older toilet with a more efficient one saves an average of 3 gallons per flush – or approximately 6,000 gallons per person per year! Upgrading sanitation equipment across our sites, we have already saved over 7 million gallons of water by installing low-flow faucet fixtures, sensors, and dual flush technology since 2013.

Innovating How We Green

> ***Our industry's rapid growth over the next two decades requires an intensive focus on improved sustainability. Fortunately, natural leadership is in our lineage.***

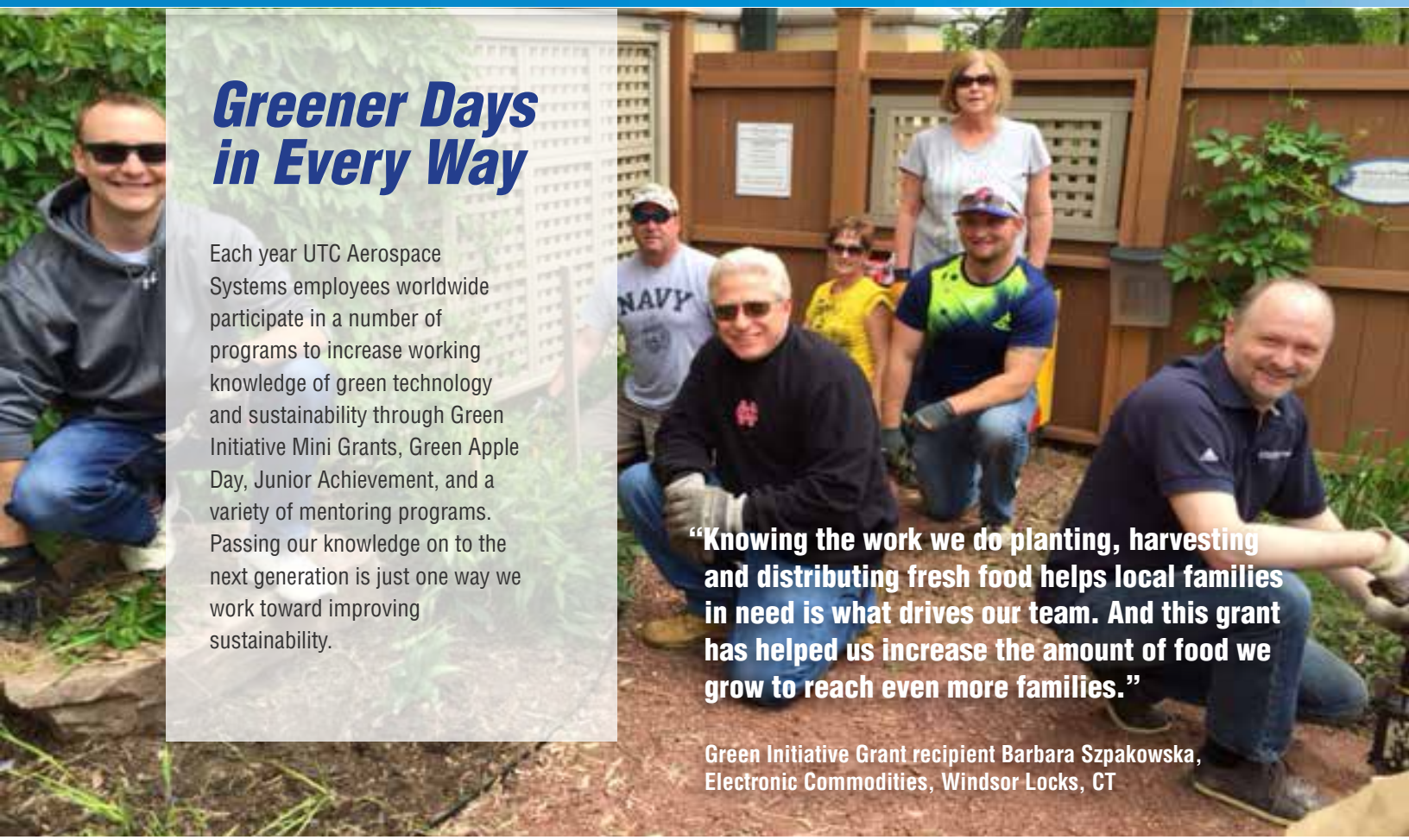
Few companies understand it as deeply as we do. By investing aggressively in R&D, working with partners like NASA and the Federal Aviation Administration (FAA), and capitalizing on a unique perspective that reveals the integrated needs of aircraft, we're making powerful contributions to commercial aviation sustainability. We are reducing the environmental footprint of our manufacturing facilities on the ground, developing innovative and integrated technologies in laboratories across the globe, and providing quieter, cleaner, more efficient products in the air.

In addition, while we are leading the industry in action, we continue to lead the charge forward with further R&D, programs, and proposals:

- Some of our most brilliant minds formulated more environmentally-friendly corrosion protection for steel landing systems—yielding five patents and greener skies.
- With thought pieces like "How We Travel" with Emmy-nominated TV host Philippe Cousteau, we demonstrate how we pioneer groundbreaking innovations in sustainable aviation.
- Every day we push the boundaries of green technologies like additive manufacturing, high-temperature composites and nanotechnology in our MPE (Materials and Process Engineering) Lab in Windsor Locks. Read all about it in "Greening Aviation from the Ground Up," a white paper by Sara Kerr, UTAS Executive Director of Environment, Health and Safety; and John Mandyck, Chief Sustainability Officer at UTC.
- And we're showing the world how weight, design and integrated systems drive sustainable aviation in another white paper, "Green Ideas Born to Fly" by Geoff Hunt, UTAS Vice President of Engineering & Technology, and John Mandyck, Chief Sustainability Officer at UTC.

Greener Days in Every Way

Each year UTC Aerospace Systems employees worldwide participate in a number of programs to increase working knowledge of green technology and sustainability through Green Initiative Mini Grants, Green Apple Day, Junior Achievement, and a variety of mentoring programs. Passing our knowledge on to the next generation is just one way we work toward improving sustainability.



"Knowing the work we do planting, harvesting and distributing fresh food helps local families in need is what drives our team. And this grant has helped us increase the amount of food we grow to reach even more families."

Green Initiative Grant recipient Barbara Szpakowska, Electronic Commodities, Windsor Locks, CT

Bangalore Hospice Trust

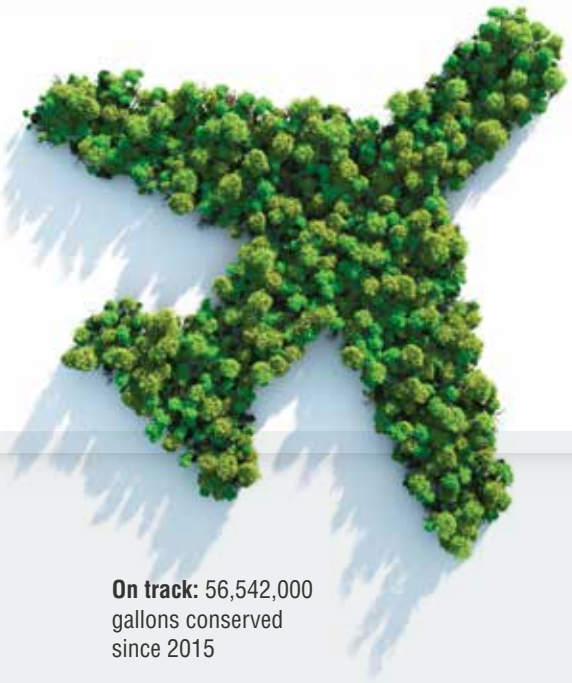
The Karunashraya Cancer Hospital team in Bengaluru, India, created a first-of-its-kind program to plant vegetables and flowers that bring scent, color and texture (and food!) for those seeking tranquil, safe and reflective spaces at the hospital. The activity not only created a connection with nature and a chance to work alongside others – it continued a tradition of hospice gardens all over the world.

Foodshare

Ever wanted to help plant, harvest, and package food for families in need? The Electronic Commodity team in Windsor Locks, Connecticut, did just that. Their farming efforts helped bring fresh produce to many of the 137,000 people in Connecticut that are in need of assistance (approx. 7,500 healthy meals). The events also helped the team members hone their gardening skills – one intern learned that the tough weeds are really chives!

Greening it Forward

> ***New sustainability goals for 2020 mean new opportunities and challenges!***



WATER

GOAL **25% REDUCTION**

On track: 56,542,000 gallons conserved since 2015

WATER

GOAL **IMPLEMENT WATER BEST MANAGEMENT PRACTICES**

On track: Not a small drop in the bucket, our Rome, New York Electric, Engine & Environmental Control Systems facility's elimination of a once-through non-contact cooling tower water helped to conserve over 12 million gallons of water annually!

AIR EMISSIONS

GOAL **100% ELIMINATION OF CHLORINATED AND BROMINATED SOLVENTS**

On track: 73,085 lbs. of solvents eliminated by switching to alternative, greener chemicals

GREENHOUSE GASES

GOAL **15% REDUCTION**

On track: 17,194 MT CO2 reduced

Slightly cloudy with an opportunity for solar! Our Banbury, UK site installed solar panels resulting in 305 MT CO2 offset – the equivalent of removing 64 passenger vehicles from the road for a year!

RECYCLING OF INDUSTRIAL PROCESS WASTE

GOAL **90% RECYCLING**

On track: We've reached 81% by keeping 198,000,000 lbs. from incineration or landfills, and we keep trending higher!

Beyond recycling: Our Windsor Locks, Connecticut, Electric, Engine & Environmental Control Systems, and Vergennes, Vermont, Sensors and Integrated Systems facilities have their paper products picked up, shredded and milled into new products that come back for second life at the sites – closing the loop on their own paper recycling!

HAZARDOUS WASTE

GOAL **10% REDUCTION**

Coming soon: 0 lbs. reduced in 2016 but we are on track to meet the 2020 goal. Stay tuned for the 2017 report!

We are working hard to reduce waste at the source. By working with purchasing and engineering, we're ensuring chemicals are only purchased when needed and non-hazardous alternatives are implemented when they meet our customer and quality requirements.

We are leaders in one of the fastest-growing industries on the planet, and as it expands, so does our influence. That's quite a responsibility. So with sustainability – as with everything else – we bring together the brightest minds to solve the toughest challenges … for our industry, and for our planet. And we move the entire aerospace industry forward.