PACKAGING

Please contact the Sustainability and Compliance Center (SCC)
if you have any questions. sustainability@hp.com

HP'S SUSTAINABLE PACKAGING STRATEGY

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Supporting a Circular Economy

ELIMINATE

- Eliminate unnecessary packaging material and space
- Eliminate hard-to-recycle plastics

INNOVATE

- Innovate packaging designs to use materials with lower environmental impact
- Use sustainable fiber (certified or recycled)
- Use recycled and ocean-bound plastics

CIRCULATE

- Generate demand for recycled content
- Choose materials with higher recycling rates worldwide

Compliance tools:

HP General Specification for the Environment

HP Sustainable Paper and Wood Policy

HP'S PROGRESS

ELIMINATE | INNOVATE | CIRCULATE

FY19 Results - **40** innovative projects reducing environmental impact

Reducing plastics

1,100 tonnes of plastic material reduced

17,000 tonnes used

Utilizing recycled materials

Shipping in bulk packaging

540,000 units shipped

52,000 pallets made from over 2,600 tonnes of straw

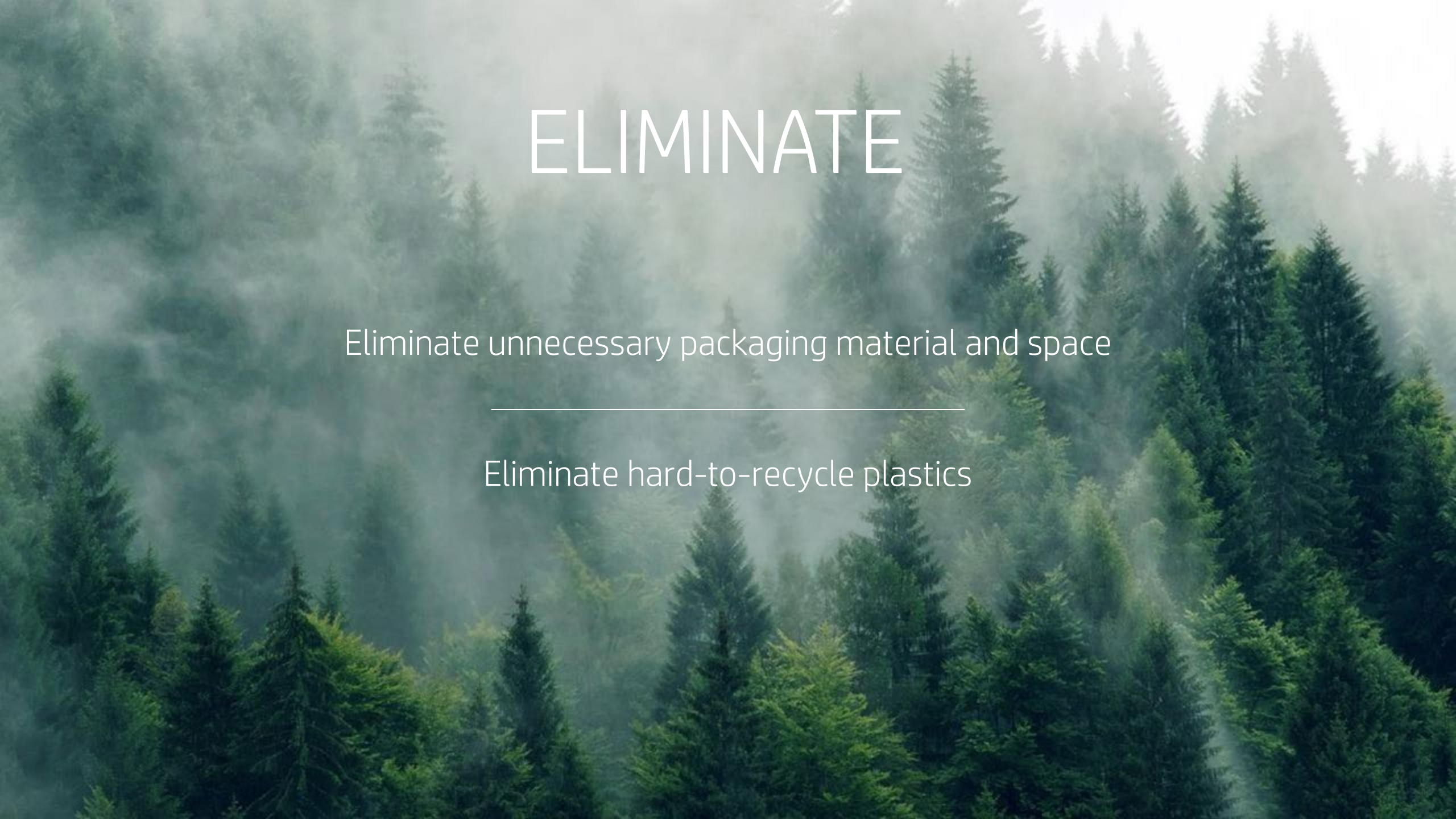
Recycling straw waste

Goal of **Zero Deforestation** from paper-based product packaging by end of 2020

SUSTAINABLE PACKAGING INITIATIVES

2019 HIGHLIGHTS

- Updated HP's sustainable packaging strategy to emphasize customer demand for recyclability and recycled content
- Reduced use of plastic foam cushioning and smaller plastic packaging components
- Increased use of recycled and certified fiber-based packaging
- Increased bulk packaging configuration offerings


ELIMINATE
Eliminate unnecessary packaging material and space
Eliminate hard-to-recycle plastics

TARGETING SMALLER IN-BOX PLASTICS

ESTIMATED MATERIAL SAVINGS

40M units Mouse & keyboard **plastic ties replaced** with paper ties at same cost

4.4 MT Plastic reduction

4.8 MT Metal wire reduction

Quantities per year

1.8M units with document **plastic bags** removed

8.7 MT Plastic reduction

$43K cost savings

Quantities for Palermo Inkjet photo printer over product life

PROJECT

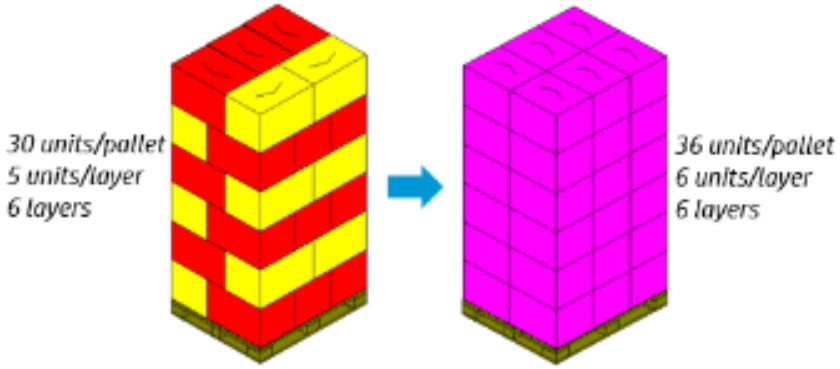
- In 2019, HP launched an internal Supply Chain Academy project team with the goal of reducing smaller **in-box single-use plastic** components.
- Two components were identified for elimination – **power cord plastic ties** and **plastic document bags**. HP will continue this effort to reduce smaller plastic components in 2020.

SMALLER PRODUCTS & PACKAGING IN HP LASERJET HARDWARE

- HP has continuously reduced the size of our LaserJet printers, which has decreased the demand for plastic packaging.
- In FY19, HP reduced the use of plastic packaging for our LaserJet printers by 100 tonnes across 4 product platforms.
- Reduced use of corrugated materials by 175 tonnes in FY19.
- This has led to the avoidance of 178 containers and saved the equivalent of 313 tonnes CO_2e emissions in FY19.

PACKAGING REDESIGN FOR HP LASERJET M1005 PRINTER

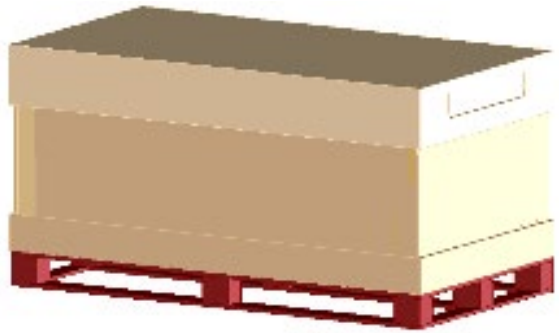
- HP was able to **reduce the packaging weight** of the LaserJet M1005 multi-function printer by 13% gen-over-gen.
- This redesign eliminated over 95 tonnes of plastic foam, utilized 180 fewer ocean containers, and avoided 794 tonnes CO_2e in FY19.
- The new design also allows for 20% more units per pallet.



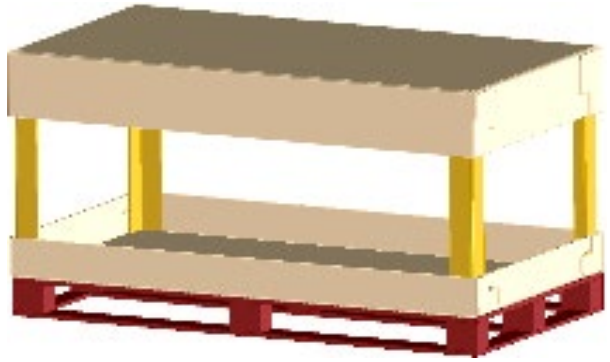
HP DESIGNJET T1600/2600 PRINTER PACKAGING IMPROVEMENTS

- HP instituted a “clearview” concept on our HP DesignJet printers to **save 3 kg** of corrugated cardboard per unit.
- Through FY19, this effort has eliminated over 45 metric tonnes of material and consequently saved 76 tonnes of CO_2e.

Neptune



Neptune Clear View



HP IS TRANSFORMING PACKAGING

Our goal is to eliminate single-use plastic packaging by 75% by 2025*

INNOVATE

Innovate packaging designs to use materials with lower environmental impact

Use sustainable fiber (certified or recycled)

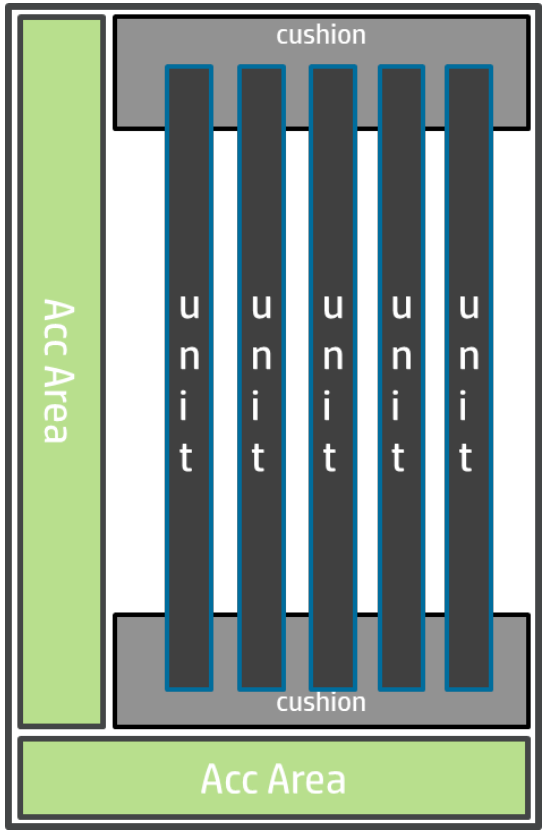
Use recycled and ocean-bound plastics

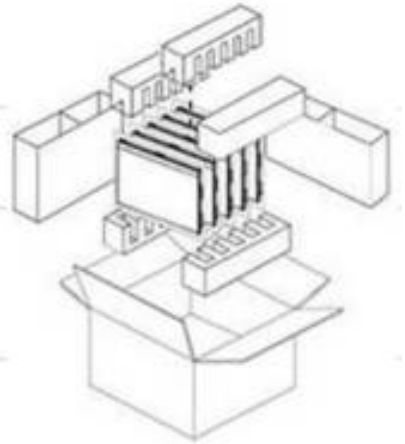
BULK PACKAGING DEVELOPMENT FOR HP COMMERCIAL NOTEBOOKS

Developed 5-in-1 bulk packaging offering

Reduced packaging material by 88 g per unit and increased pallet density by 15%, on average.

HP Shipped over 14,500 bulk packaged notebooks in FY19, eliminating over 1,200 kg of packaging material





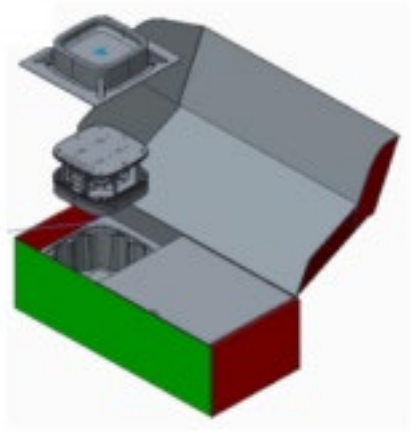
BULK PACKAGING DEVELOPMENT FOR HP ELITE SLICE G2

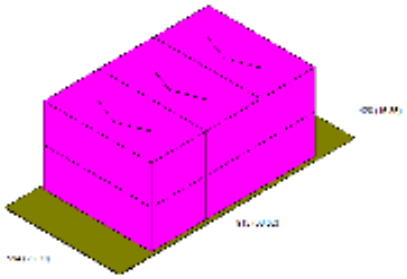
Developed 6-in-1 multi-unit bulk packaging assemblies

Environmental savings:

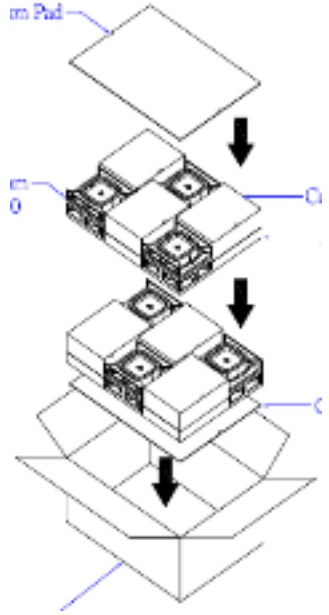
- 25% reduction in packaging volume
- 11% pallet density increase
- 2 kg of packaging material eliminated

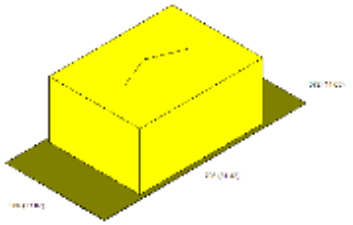
Single Unit Solution





Multi-unit Solution





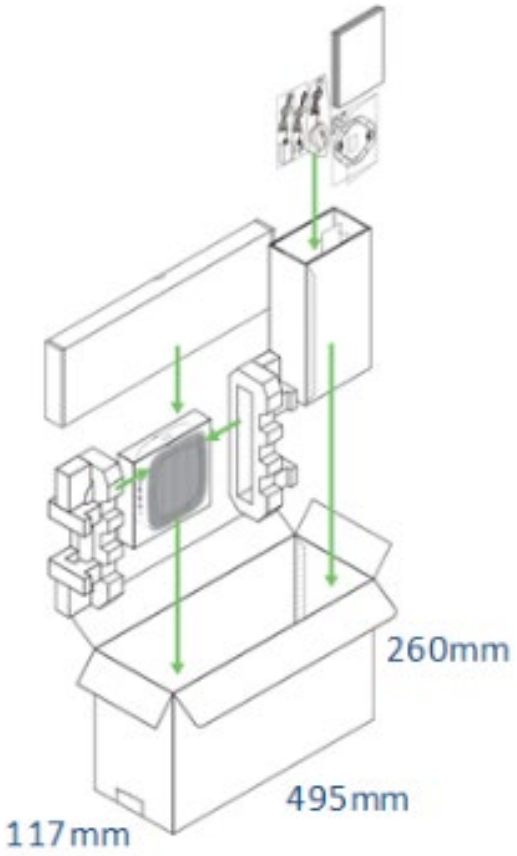
BULK PACKAGING DEVELOPMENT FOR HP THIN CLIENTS

Developed 10-in-1 multi-unit bulk packaging assemblies

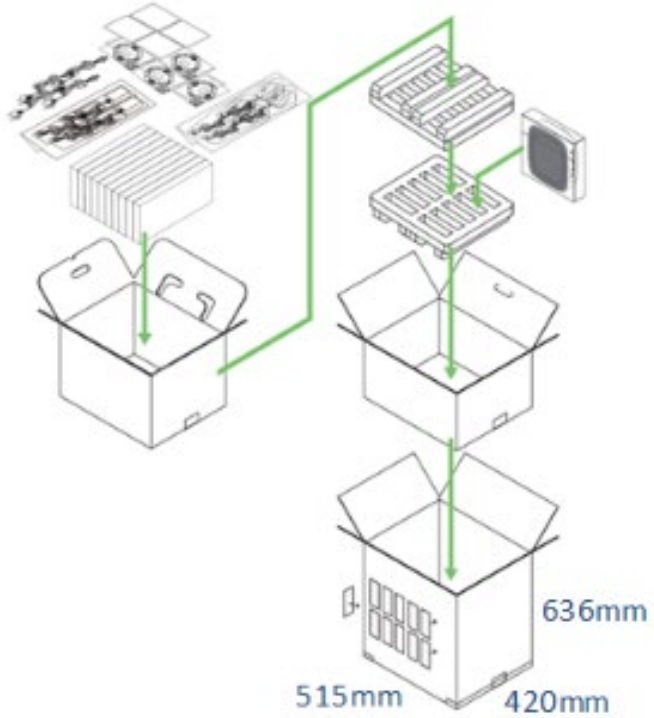
Multi-unit package sees a 28% reduction in packaging weight or 132 g less packaging per unit.

In FY19, HP shipped over 260,000 thin clients in bulk packaging configurations, saving 34 metric tonnes of packaging material.

Single Unit Solution



Multi Unit Solution



HP TANGO TERRA – FIRST HP PRINTER WITH NO PLASTIC PACKAGING

Plastic bags, shrink wrap, and plastic box lining were **replaced** with all paper, recyclable components.

Total packaging weight was also **decreased** by 89 grams per unit.

HP plans to extend the learnings from this project to other printing products.

FY19 TANGO
IN PLASTIC, SHRINK WRAP & PRINTED BOX

FY19 TANGO TERRA
IN PAPER SOLUTION

STRAW PALLET PROGRAM

- Systematic burning is a significant source of air pollution
- First IT company to replace wood pallets with straw pallets
- More than 140,000 pallets made from more than 6,000 tons of straw used since 2017
- Program helps reduce environmental impact, improve economic opportunities, and enhance quality of life
- Illustrates HP's shift to a more efficient, circular and low-carbon economy

KEY ADVANTAGES OF STRAW PALLETS

- ✓ Easy to assemble and reassemble
- ✓ Recyclable and biodegradable
- ✓ Free from formaldehyde
- ✓ Moisture resistant
- ✓ Good loading performance

KEY BENEFITS OF STRAW PALLETS

Reduce Environmental Impact

Source materials more responsibly

Eliminate the harvesting of wood

Improve Economic Opportunities

Provide farmers and their families with a new source of income

Additional workers needed for plant

Enhance Quality Of Life

Reduce air pollution

Improve health of people

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CIRCULATE
Generate demand for recycled content
Choose materials with higher recycling rates worldwide

DEVELOPMENT OF MOLDED PULP CUSHIONS FOR HP NOTEBOOKS

Phasing out hard-to-recycle expanded plastic foam cushions in favor readily recyclable, 100% recycled content molded pulp cushions for HP commercial and consumer notebooks.

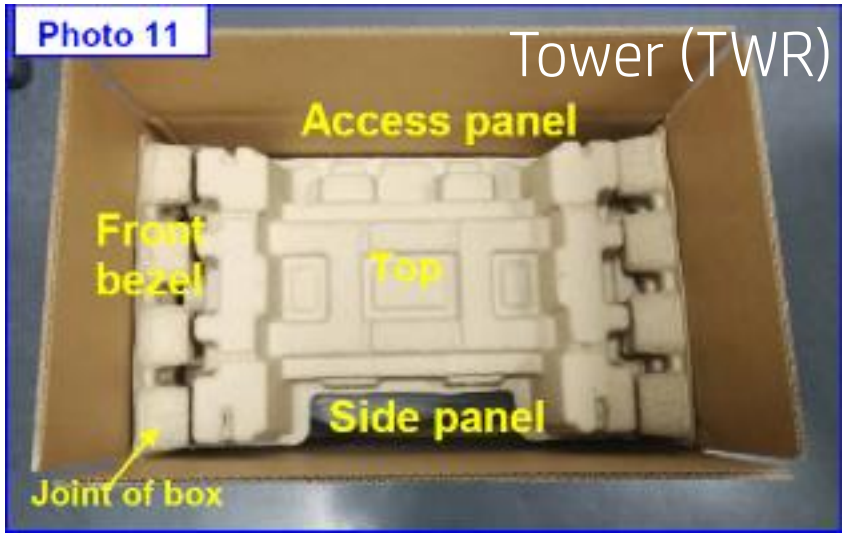
Eliminated the plastic cushions of over 3.4 M notebooks, approximately 214 metric tonnes of plastic foam in FY19.

Equivalent of 224 40ft shipping containers of foam.

DEVELOPMENT OF MOLDED PULP CUSHIONS FOR HP DESKTOPS

Phasing out hard-to-recycle expanded plastic foam cushions in favor of readily recyclable, 100% recycled content molded pulp cushions for HP commercial and consumer desktop towers.

Eliminated the plastic cushions of over 3.1 M desktops, thereby eliminating over 588 metric tonnes of plastic foam in FY19.



REDESIGN OF HP SPROCKET SELECT PHOTO PRINTER PACKAGING TRAY

Redesigned packaging tray of the HP Sprocket Select Photo Printer to **replace** the original hard plastic tray with 100% **recycled, readily recyclable** molded pulp.

Decreased weight of the tray by 3 grams, resulting in 1,200 kg of packaging material eliminated and 5,748 kg CO2e avoided in FY19.

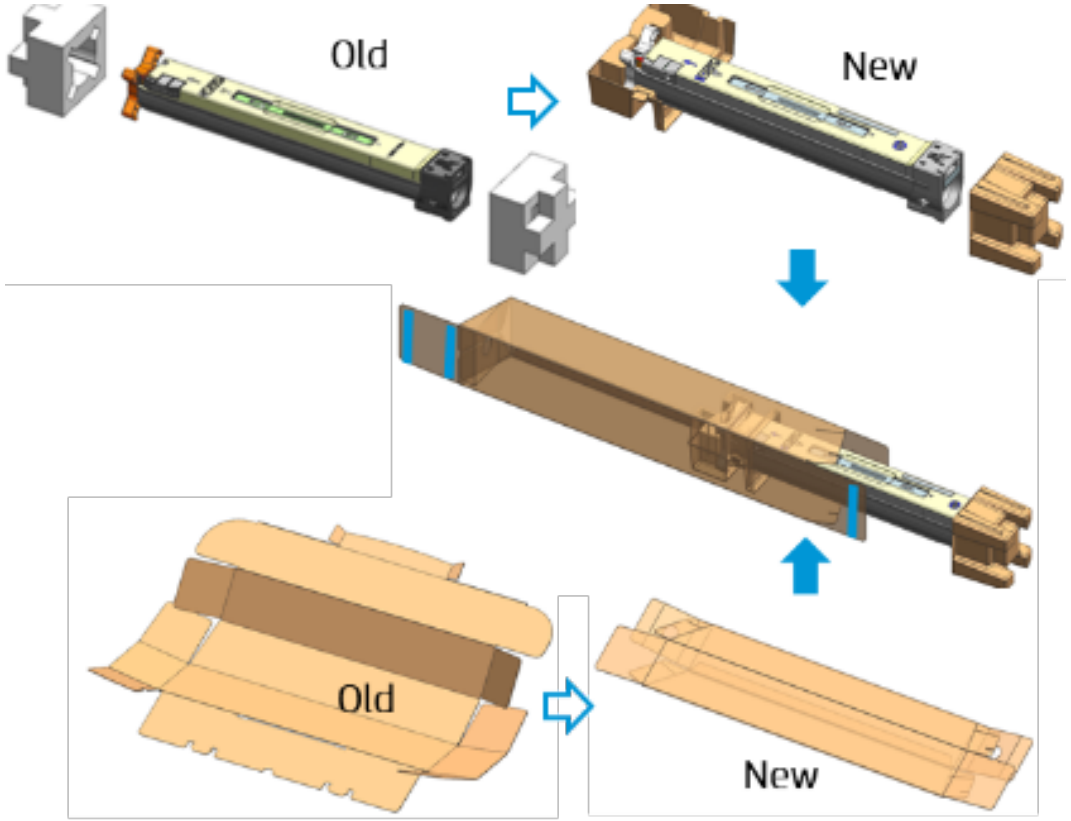
Polystyrene tray
(Before)

20 g

Molded pulp tray
(After)

17 g

REDESIGN OF A3 TONER CARTRIDGE CUSHION MATERIAL



HP Printing Korea worked to redesign their A3 toner cartridge packaging to **reduce plastic packaging** material.

The new design replaces hard plastic cushions with **molded pulp end caps**.

Eliminates 82 tonnes of plastic material per year while **avoiding** 446 tonnes of CO2e.

INCORPORATION OF RECYCLED CONTENT IN PLASTIC POLYBAGS

Made with 80% virgin and 20% recycled plastic material and provides similar product protection from dust and abrasions.

In FY19, HP used 7,791 kg of this material to avoid over 134 tonnes of CO2e.

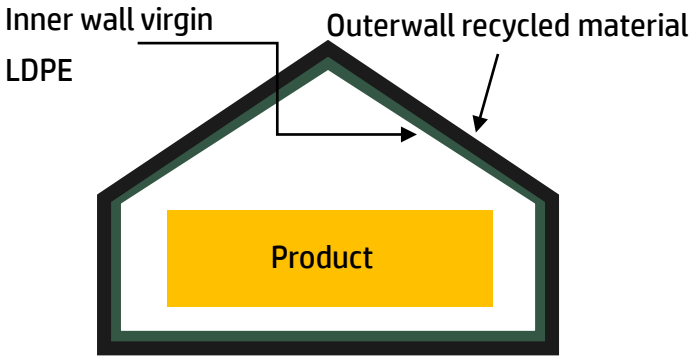


Illustration of double layer polybag

Virgin LDPE resin

20% recycled resin

Plastic sheet

COMBINING NEW AND RECYCLED LUMBER TO CONSTRUCT HYBRID PALLETS

In FY19, combining recycled deck lumber with new stringer boards to create 18,500 hybrid pallets helped **reduce** demand for 93 tonnes of virgin lumber.

SAVING FORESTRY RESOURCES AND DIVERTING WASTE THROUGH RECYCLED PALLETS

HP has piloted a program in North America to **refurbish and use recycled pallets**, rather than building new pallets.

Through recycling and reusing pallets, HP **diverted** over 622,000 pallets from the landfill in FY19.

Equivalent to 12,436 tonnes of recycled lumber and 6.8M board feet of lumber.

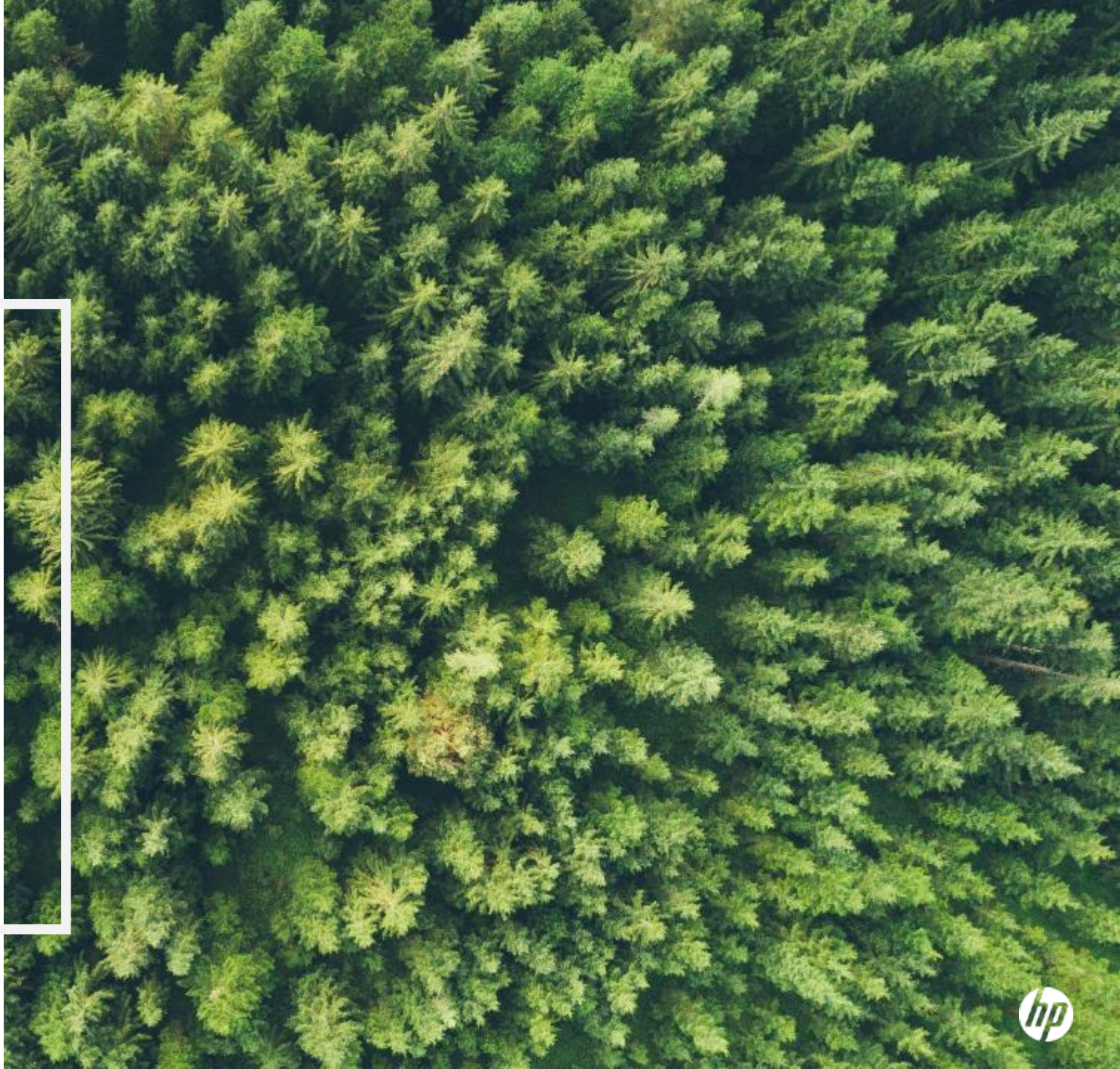
Instead of this...

Recycle/Reuse...

SUSTAINABLE PACKAGING INITIATIVES

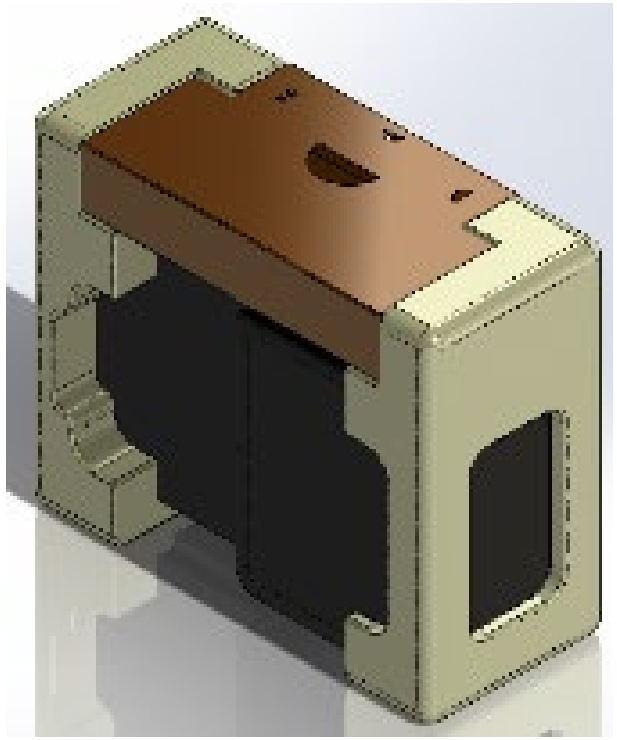
2019 PLANS

- Accelerate reduction of expanded plastic foam cushioning
- Continue to target inbound and outbound plastic packaging components for removal
- Ensure that all HP-branded paper-based packaging is derived from recycled or certified sources
- Investigate potential for reusable packaging systems

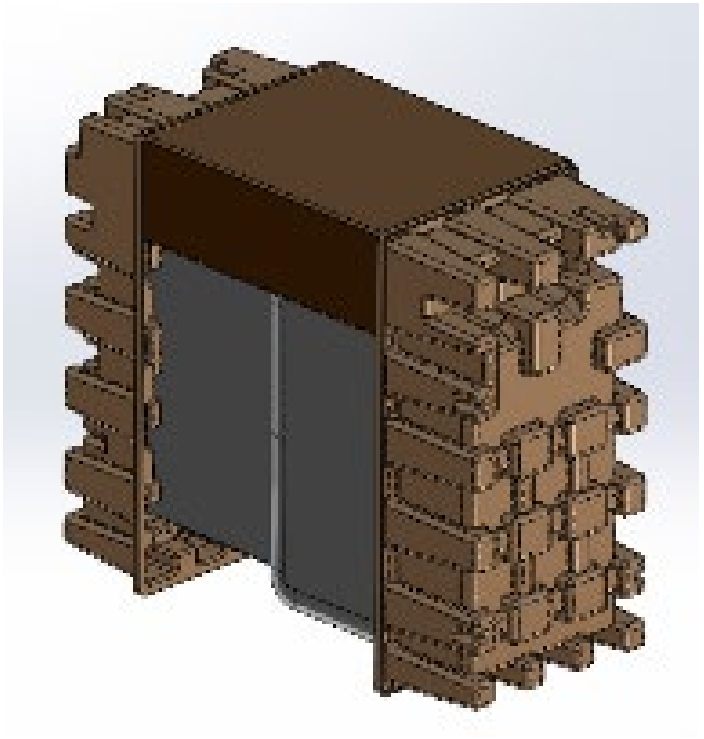


TRANSITION OF INKJET PRINTER PACKAGING TO FIBER-BASED PACKAGING

EPS Cushion



Molded Pulp Cushion



Redesign the packaging of our **HP DeskJet 4100** and **HP Envy 6000** inkjet printers to replace previous EPS plastic foam cushions with recycled, readily-recyclable molded paper pulp.

Eliminates 480 tonnes of hard-to-recycle plastic foam annually.

REPLACEMENT OF COMMERCIAL NOTEBOOK ACCESSORIES POSTER

In FY20, HP will be **replacing** accessories posters included in notebooks documentation kits with a QR code cling sticker.

This initiative will help **eliminate** 2.6 tonnes of printed documentation and avoid 1,400 tonnes of CO2e annually.

Replaced with QR code Cling

24”x8” Accessory Poster

HP COSMETIC REPAIR LABEL

Boxes that may have suffered cosmetic scuffs and marks during transit can **avoid re-boxing** with a new box by using a small **repair label** to cover the purely cosmetic damage.

Benefits

Uses 0.1% of the packaging material of a typical product corrugated box

13,600 kgs of material saved annually in Latin America alone

235 tonnes CO2e avoided = 49 passenger cars taken off the road

228 trees saved[1]

TARGETING OTHER PLASTIC PACKAGING COMPONENTS

In FY20, HP will be investigating **reduction**, **elimination**, or **replacement** solutions for smaller plastic packaging components.

This includes smaller plastic packaging components that we receive from our suppliers (i.e. "**inbound**") as well as those that eventually reach our end customers (i.e. "**outbound**").

Keyboards

Documentation Kits

Raw Material Suppliers

Inbound

Plastic from…
- Bulk packaging
- Bubble wraps
- Plastics
- Other waste

Original Design Manufacturers (ODMs)

Outbound

Plastic bags for…
- Notebooks
- AC Adapter
- Doc Kits

End Customer Out-of-Box Experience