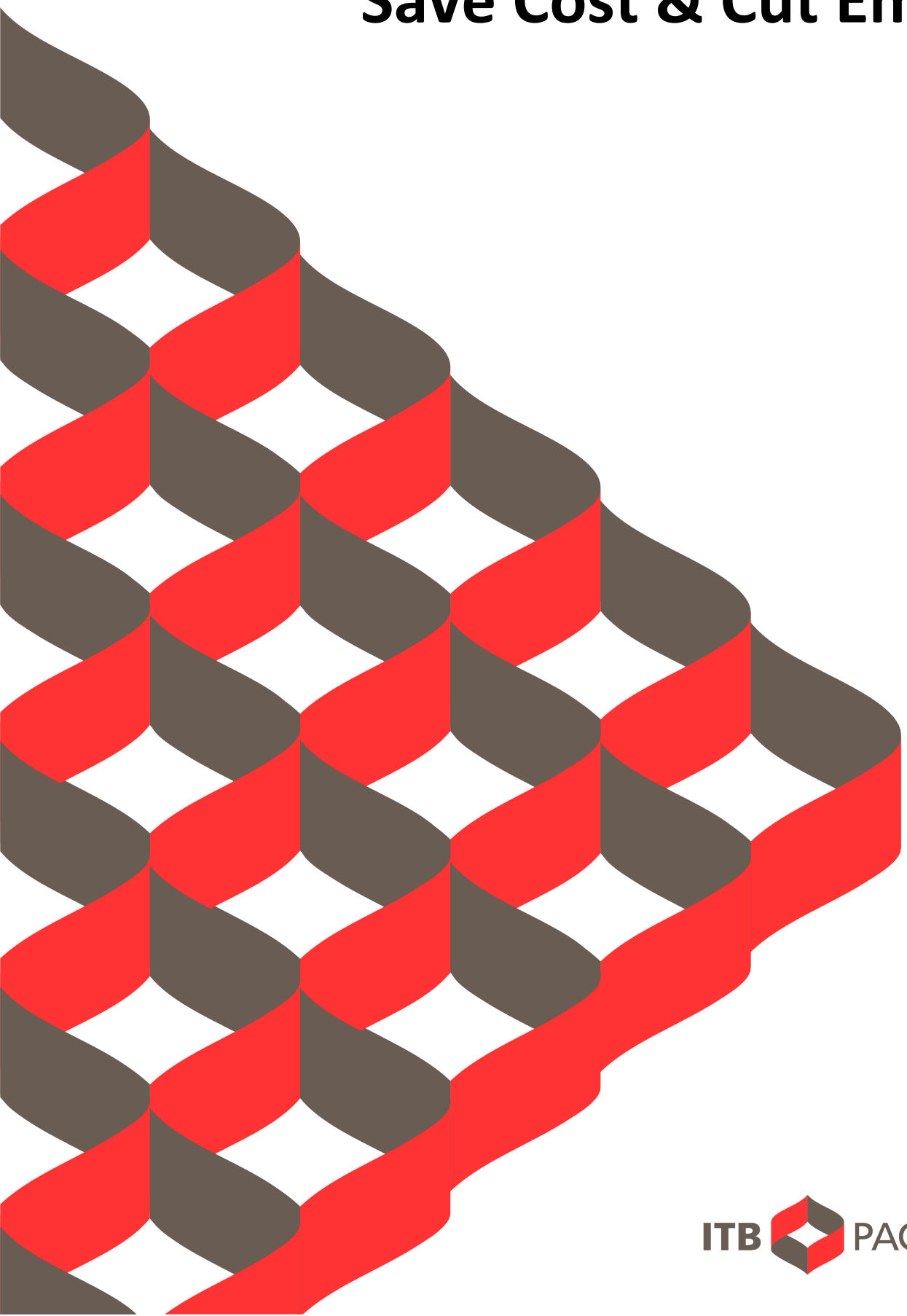
PACK DENSITY CASE STUDY:

Save Cost & Cut Emissions



ITB PACKAGING LLC

SITUATION:

An injection molding company was facing challenges with packing efficiency. Their existing packaging solution limited parts per pack, per skid, and per truckload, leading to higher shipping costs, increased labor for unloading and assembly, and unnecessary CO_2 emissions. The company sought a solution that would optimize their supply chain without requiring additional storage space.

SOLUTION:

ITB Packaging redesigned the customer's packaging using their innovative flexible paper dividers. The paper conforms closely to the parts, allowing more items per pack while maintaining excellent protection. The redesign increased pack density by 39%, fitting more parts per pack, per skid, and per truckload, all without increasing the overall space required.

RESULT:

By reducing the number of trucks, skids, and packs, this solution significantly lowered costs and supported sustainability goals in both manufacturing and shipping. The customer achieved a more efficient, environmentally friendly supply chain, a win for both their bottom line and the planet.

Pack Density Comparison		
Metric	**Original Pack**	**ITB Redesign**
Parts per Pack	36	50
Parts per Skid	432	600
Parts per Truckload	22,464	31,200

Results	
Catergory	**Estimated Annual Savings (1 Million Parts)**
Shipping Costs	$14,000–$19,000
Forklift Unloading Labor	$800–$1,000
Line Assembly Labor	$1,600-$1,800
Total Monertary Savings	$16,400-$21,800
CO_2 Emissions Reduction	8,000-11,000kg