July 2017



CONDUCTED FOR:



MODERN MATERIALS HANDLING







Methodology

❖ Background: This study is the fourth wave of a tracking study conducted on behalf of *Modern Materials Handling*. The research is conducted to better understand current & future usage of pallets and to assess any trends that may be occurring in the pallet market. Results in this report trend back to the 2015 wave.

Areas of Investigation:

- ✓ Factors considered important when determining which types of pallets to use
- ✓ Types of pallets (wood, plastic, metal, etc.) in use/planned for future use
- ✓ Usage of new vs. used wood pallets
- ✓ Usage of plastic pallets
- ✓ Usage of metal pallets
- ✓ Level of usage for pallets during the next two years
- ✓ Recent changes to pallet usage patterns
- ✓ Usage of pallets rental services
- ✓ Usage of pallets outside the US
- ❖ Sample: Subscribers of *Modern Materials Handling* magazine
- * Respondent Qualifications: Being employed at a location that uses pallets
- Research Method: By email invitation. The invitation included a URL linked to a dedicated website which hosted the questionnaire
- Field & Response:

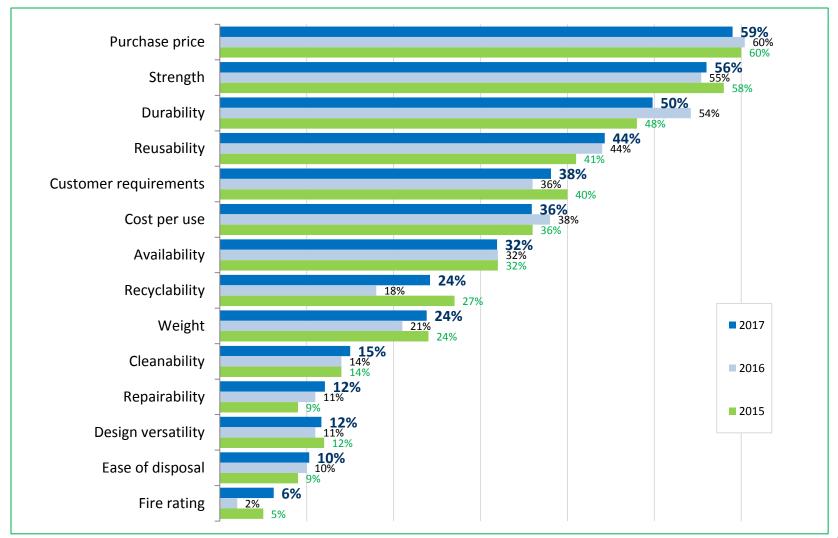
	Field	# of usable returns	+/- Sampling variation at 95% confidence level
2014	August 2014	239	6.5%
2015	June 2015	355	5.4%
2016	August 2016	286	6.0%
2017	July 2017	274	6.1%







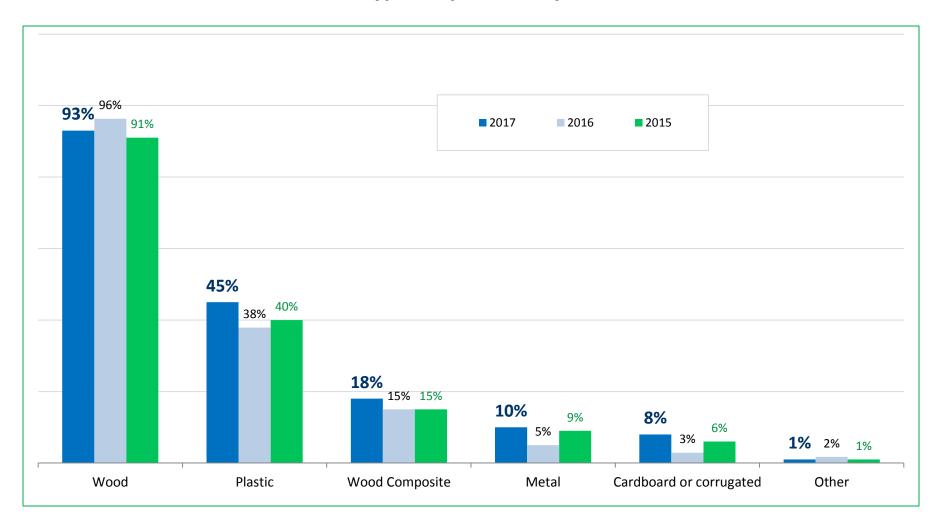
What are the most important factors in your decisions to use a certain type of pallet?







What types of pallets do you use?

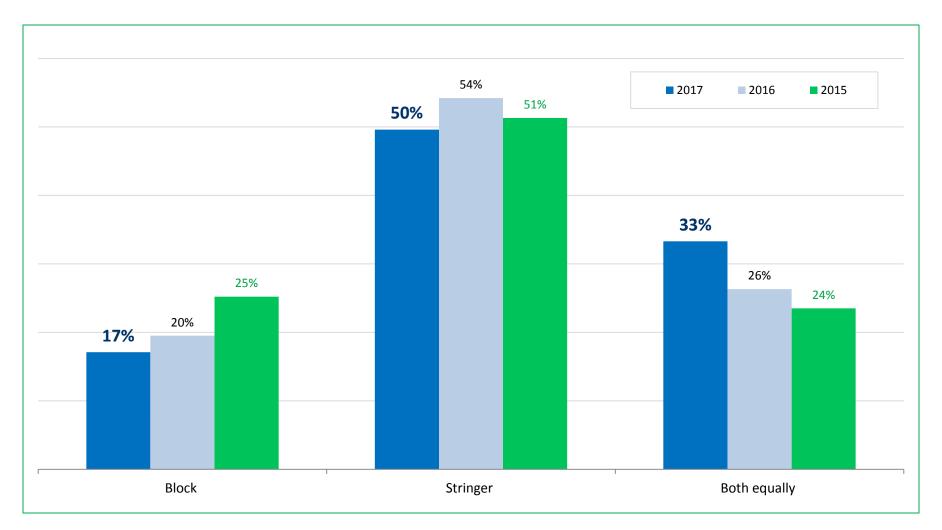








What type of wood pallets are you primarily using?









Are the *wood* pallets you purchase new or used?

What has been your experience obtaining used *wood* pallets?

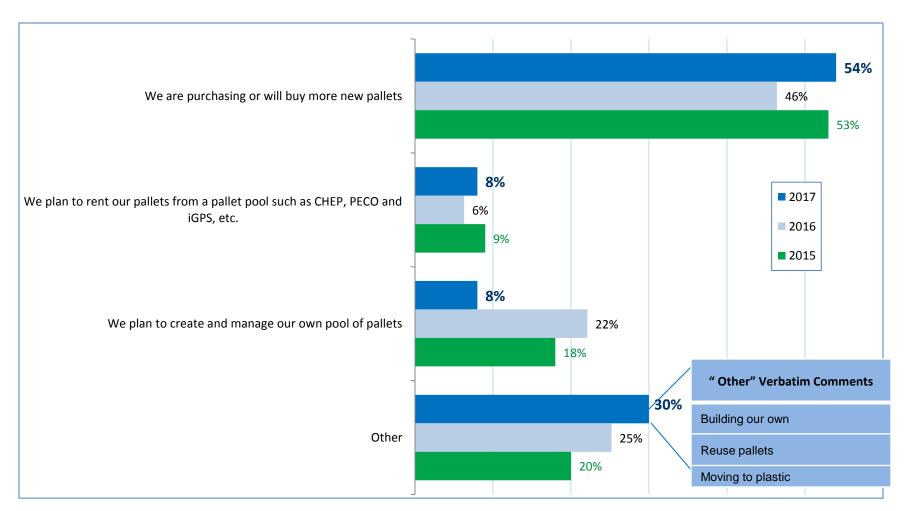








As a result of any problems with used *wood* pallets, which options have you considered?

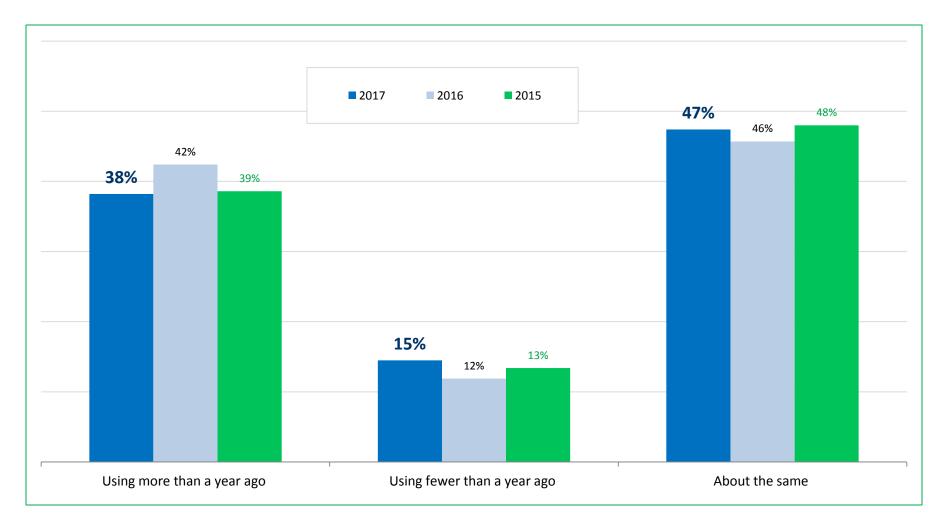








Which best describes your level of usage for *used wood* pallets?

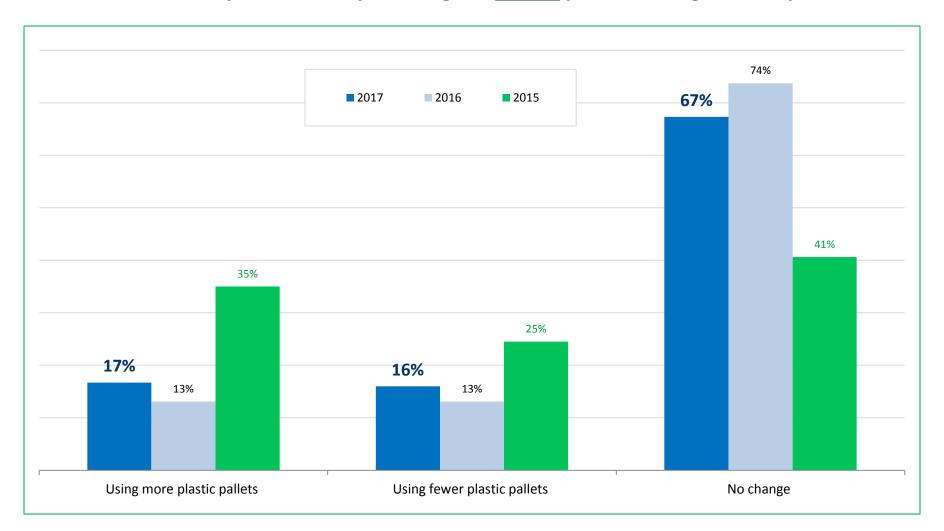








How would you describe your usage of *plastic* pallets during the last year?



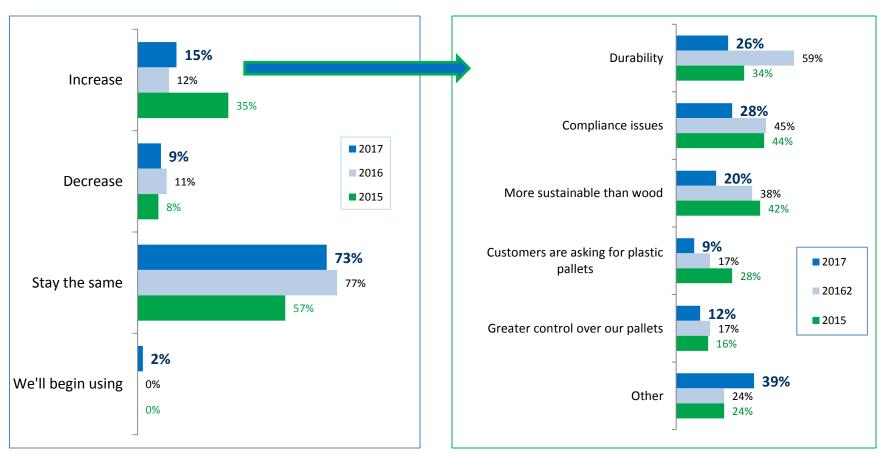






During the next 12 months do you expect your usage of *plastic* pallets to ...

Why do you expect your usage of *plastic* pallets to increase?



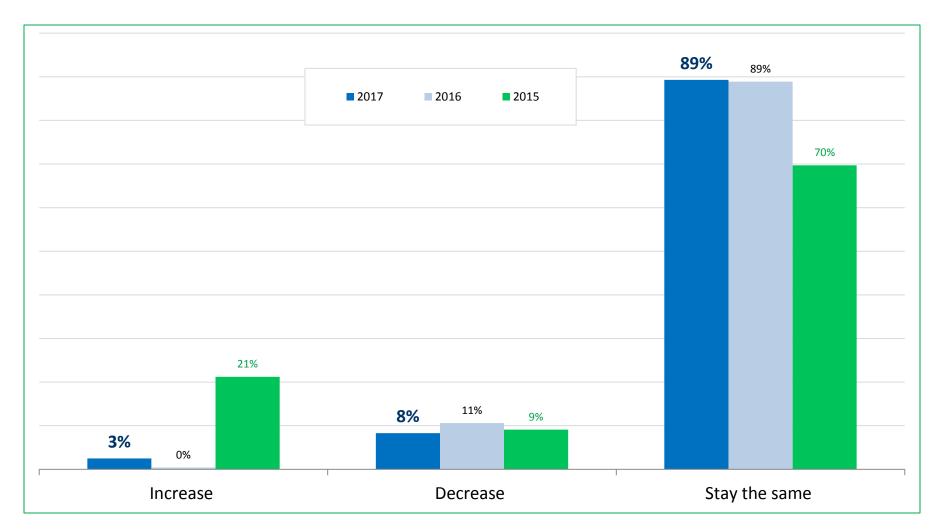
Due to the small number of cases, these data are unstable and any projections based on this information may be unreliable. Figures should be used with caution.







During the next 12 months do you expect your usage of <u>metal</u> pallets to . . .

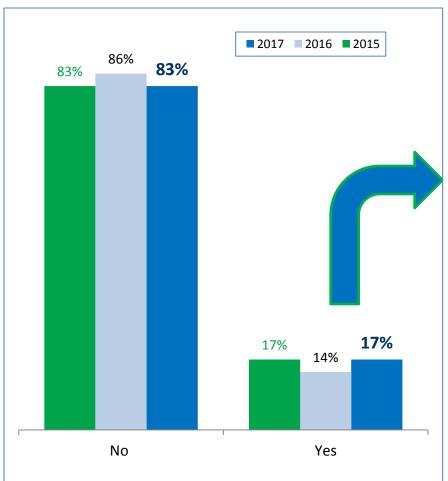


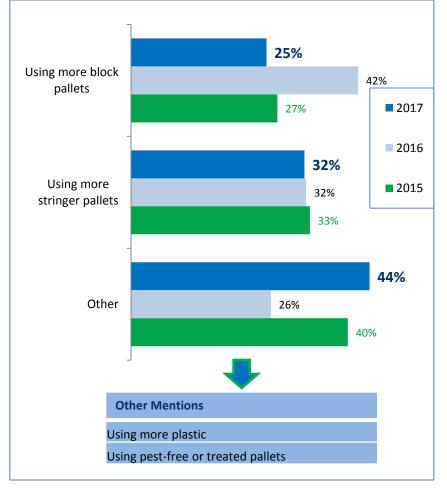




Over the past 12 months have any customers required you to change your pallet usage?







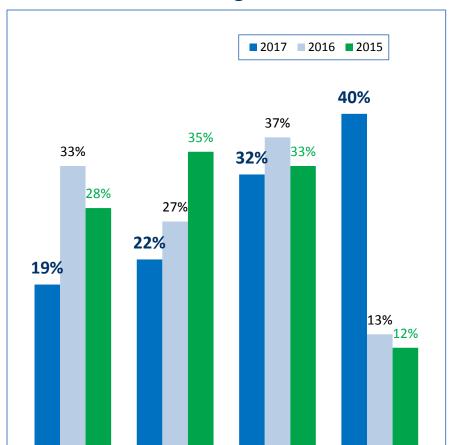
Wholesaler







What type of business is requiring this change?

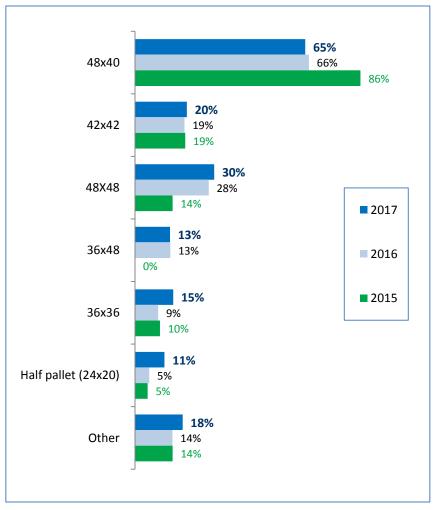


Retailer

Manufacturer

Other

What are the sizes you commonly use?



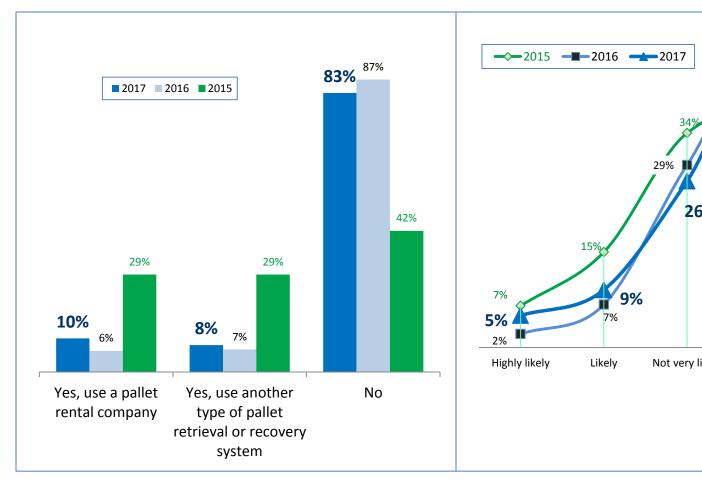


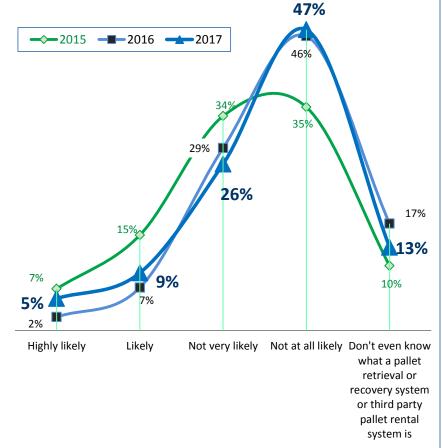




Does your company rent, plan to rent pallets or use a retrieval/recovery provider?

Would you consider participating in a pallet retrieval, recovery system or a third party pallet rental system in the next year?



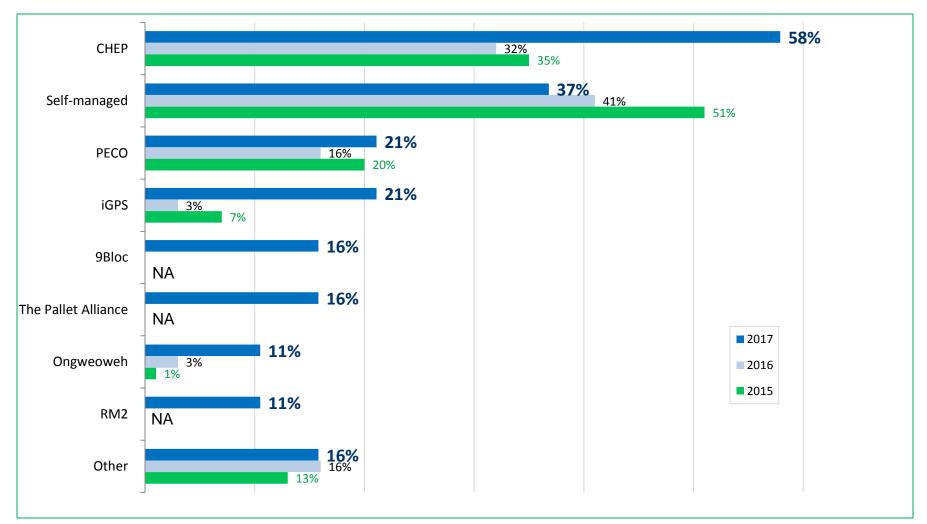








Whose pallet rental or pallet management system do you participate in or would you consider?



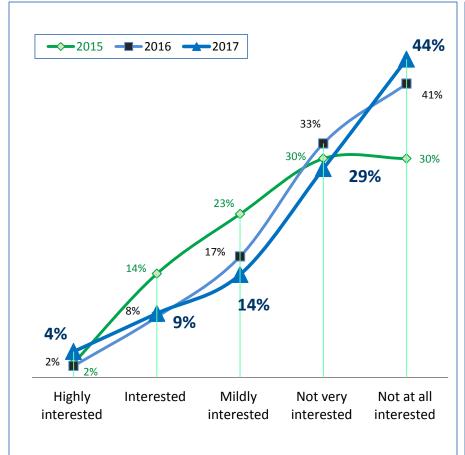


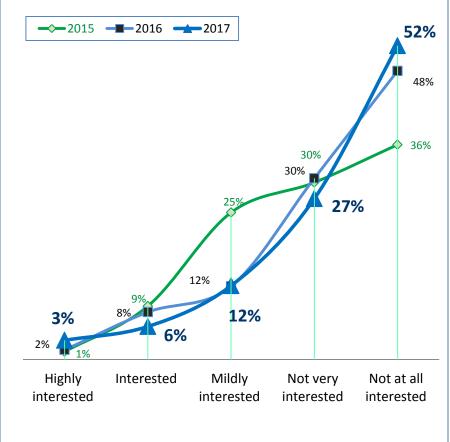




If available, how interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.

If available, how interested would you be in using a *plastic* pallet pooling service managed by a company other than iGPS that would serve as an alternative to CHEP, PECO, iGPS, etc.?



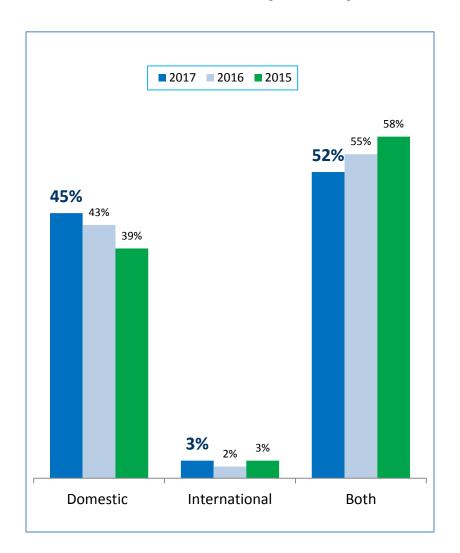




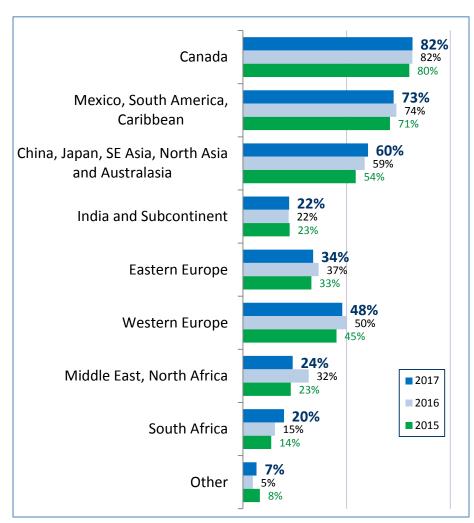




What is the nature of your shipments?



Which countries or regions are you shipping?

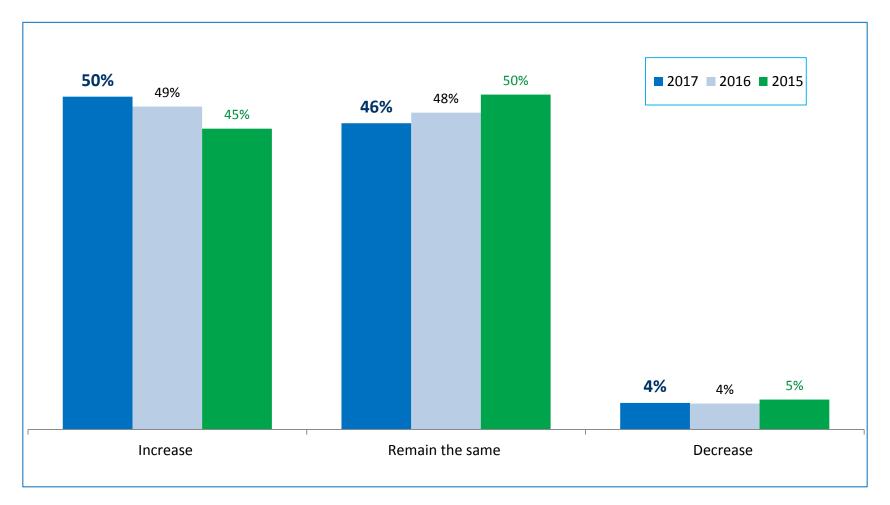








Over the next two years do you expect the number of pallets you ship internationally to ...?

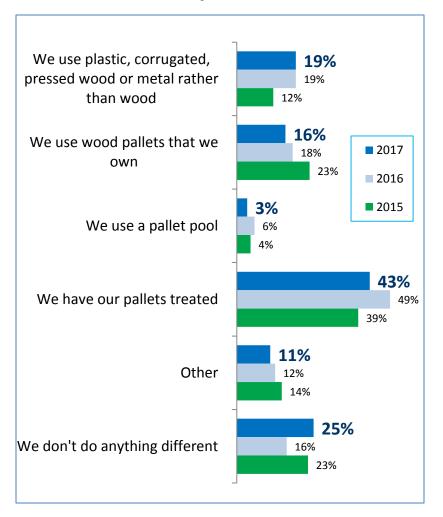




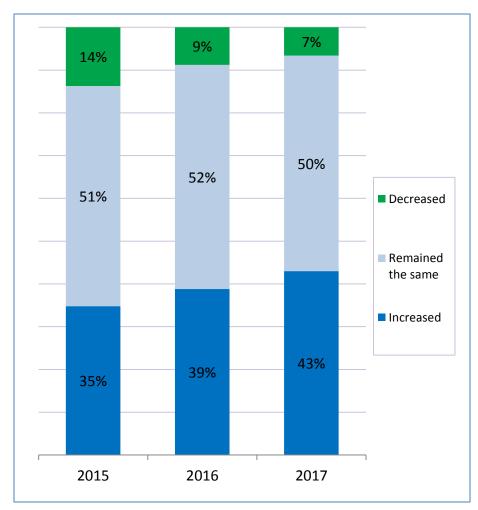




When shipping internationally, what do you do differently from domestic shipments?



During the past two years, how has the number of pallets shipped internationally changed?

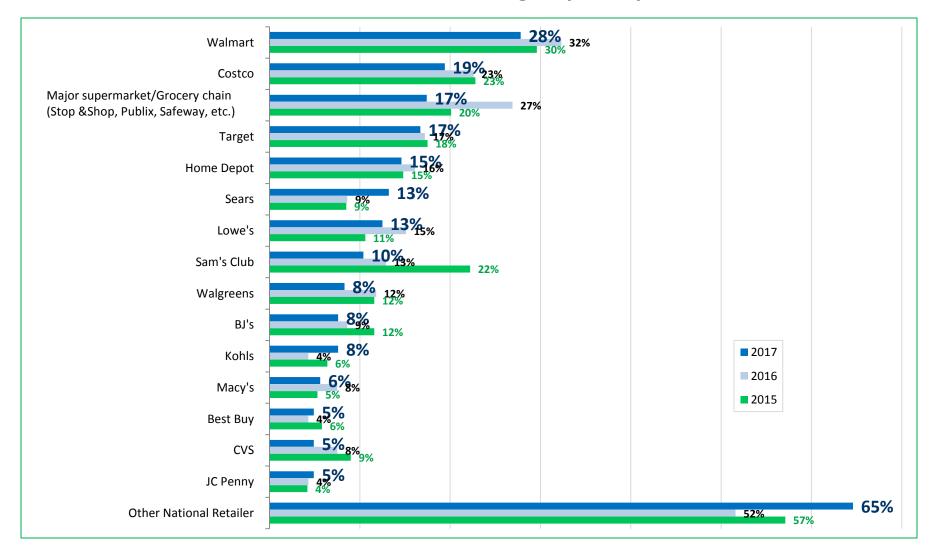








To which of the following do you ship?

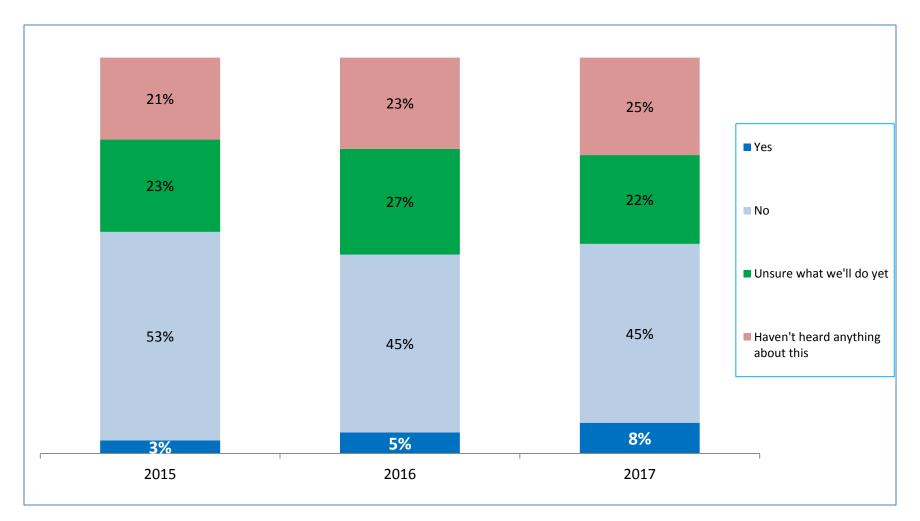








Some retailers are switching from accepting stringer pallets and are now requiring distributors to use block pallets. Is your company planning a similar strategy?



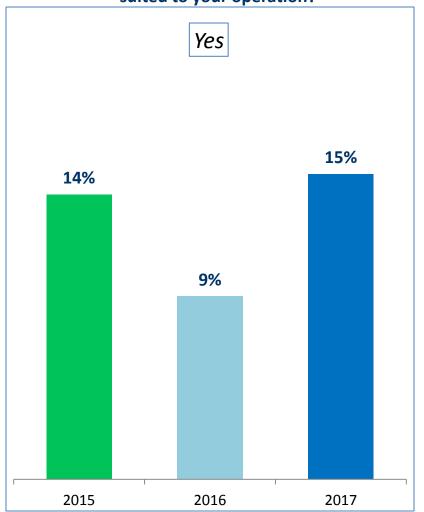


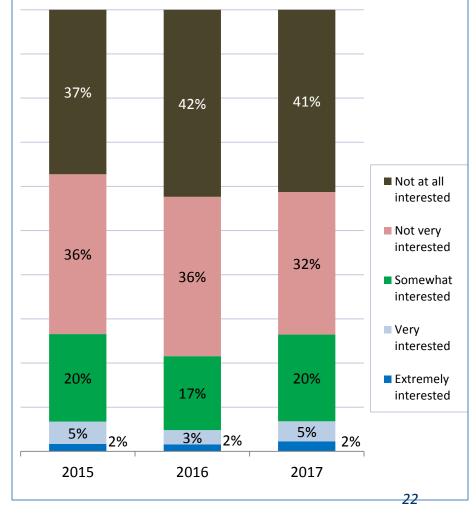




Are you now using/have you used in the past a third-party service to help you to better understand the pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) that's best suited to your operation?

How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

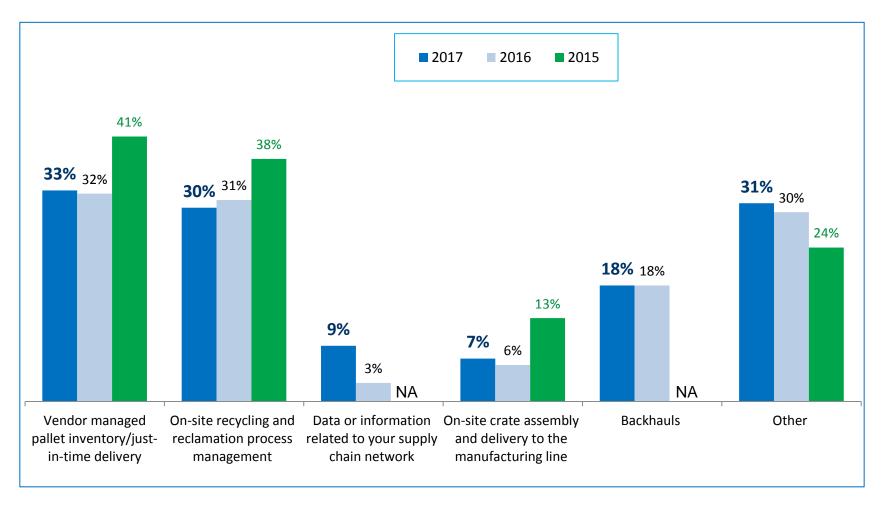








Are your pallet providers offering any of the following solutions?

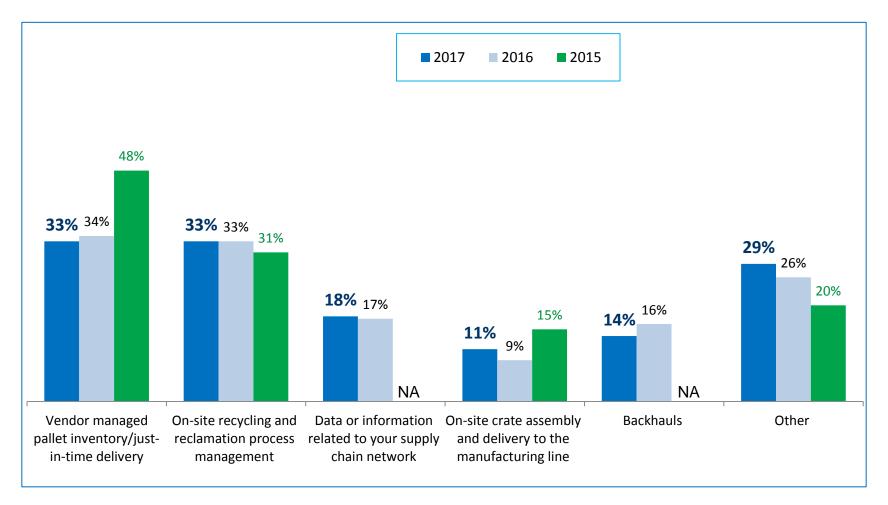








If available, which might you be interested in receiving from a third-party pallet provider?



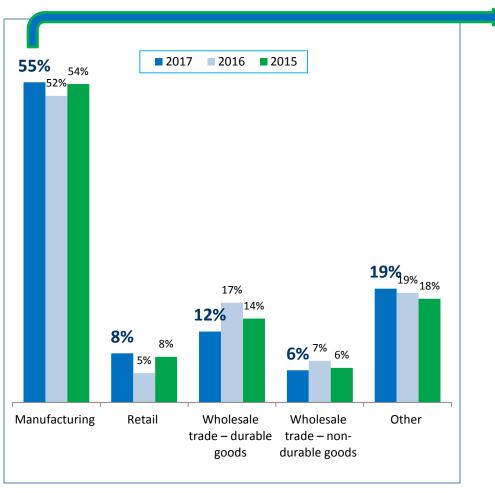






Which of the following best describe the business at this location?

In which industry do you manufacture goods?



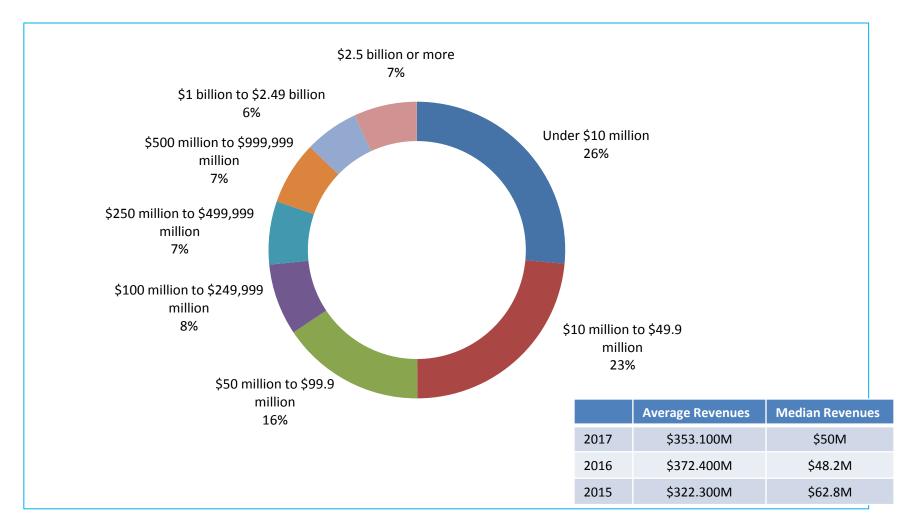
	2017	2016	2015
Aerospace	2%		
Automotive & Transportation Equipment	15%		
Chemicals/Pharmaceuticals	8%		
Computers & Electronics	1%		
Electrical Equipment	5%		
Fabricated Metals	11%		
Food, Beverage &Tobacco	9%		
Furniture	3%		
Industrial Machinery	9%		
Paper/Printing	7%		
Plastics & Rubber	7%		
Primary Metals	2%		
Textiles/Apparel	1%		
Other	19%		







What do you estimate your company's total revenues for 2017 will be?









APPENDIX

Verbatim comments:

- Q. Why do you say you would be interested/not interested in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?
- Q. How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?







How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

Why do you say this?

	It's a great idea
	Managing CHEP account creates waste within out organization
	Open to new ideas
Highly interested	pallets are expensive and take a lot of time to manage and sort
<i>3</i> ,	Quality of CHEP pallets is inconsistent. With automation need uniform pallets
	Takes the pain away from us.
	We are reviewing all aspects of our pallet usages and current programs.

	Already do this
	Always open for alternatives and seek savings to the company without affecting quality and compliance.
	Because I am interested
	Good to see options available
	I am not familiar with this service.
	Idea appeals to us
Interested	It can reduce manufacturing expanses
merestea	MAY BE A MORE ECONOMICAL SOLUTION
	Safe money
	Value proposition is there
	We already do
	WE ARE BUYING PALLETS WEEKLY VS BIANNUALLY AS IN PAST YEARS AND NEED TO CONTROL OUR SPEND
	WE DO USE CHEP CONATINERS BECAUSE OF A CUSTOMER REQUIREMENT
	Will cater primary distributors request







How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

Why do you say this?

As described, it would sound as though such a system could stand to alleviate some administrative burden (and therefore cost)
on companies like our own. Managed by the pallet industry, they also take on some accountability for the administrative
record keeping involved in pallet control systems as well.

Experience along those lines have proven to be unsatisfactory at this point in time.

I am unaware of this service at the moment

I'm not certain this possibility in Mexico

Look to see if it could reduce our pallet costs.

Looking at various alternatives to the current used wooden pallet process

Need better pallets at a good rate

Need enough scale to make feasible with Customers

Mildly interested

None at this time

Not sure what it is

Sounds expensive

The current system is working it is just a matter of trying to save money within the same process.

To see if we could get more reusable pallets from a pool.

We are in a remote area, so participation may be limited

We build or purchase hundreds of wood pallets, which we ship to our customers. I assume they need to dispose of those. We do not return them because it is a one way ship. Rental may be a good option or something to consider.

We currently use CHEP for a few of our customers

We have a mixture of pallets used for internal use and pallets that go out with finished goods. This approach can only work with internal use pallets.

We need pallets at a days notice

Would need to know the price and quality







How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

	At this point we have a stock of pallets and don't expect to need a lot more
	Business slowing. Down
	Cost
	Do not want to spend the money for a service.
	I ship material on pallets one way.
	I understand what pallet pooling is but I do not know the alternative that it is serving to (CHEP, PECO, etc.)
	Internal control and management is working well
	Inventory levels control
	IT'S TOO DIFFICULT TO GET PALLETS BACK.
	Low quantity used.
	Most of our pallets stay in house
Not very interested	Most pallets we use are for shipping purpose. and are shipped as non return
	Not a high focus area for us at this time.
	Not a large cost driver.
	Not needed we retrieve our own pallets
	Our structure continues to be successful.
	Out pallet usage is a one way transaction - out. We do not attempt to reclaim pallets from our customers
	Size if different. nature business also different.
	Specific customer requirements
	The company will not want to spend money to lease.
	The use of a pallet pooling company would be a decision that our clients would have to make. We currently use wooden pallets for use on inbound freight from containers and for picking less than pallet quantities.
	The way some of the items are packaged does not require a lot of pallets.







How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

Too much bother	
Too much corporate red tape to go through	
Trying to stay away from pallet poolingvery expensive. We will only go to it if a customer red border shipping.	quires for cross
Typically we use the pallets until they are damaged then discard them.	
We are not experiencing any problems at this time.	
We build pallets to fit custom productsso we use a standard pallet and make modifications t	o fit
We do not allow our design to be exposed.	
We do not have the contract to provide pallets. We provide the automated equipment to mo	ve them.
We have an increasing number of pallets from inbound deliveries alone	
Not work interested We have internal resources for this job	
Not very interested We have no shortage of used pallets. We usually end up sending excess pallets to recycle	
We like our current process of buying used pallets and using them one time	
We only use recycled wood pallets. I don't know what these other pallets are.	
We ship between our 30station and most vender send a pallet with heavy equipment we have keep in our own pool or just recycle. or buy a few as needed.	ordered we will
We ship mostly small package	
We stock and repair our own pallets, this is working very well.	
We use CHEP only at Customer request. Not expecting changes.	
We use custom built pallets	
We use them as one way pallets	
What we are doing now works with pallet management.	







How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

	Too much bother
	Too much corporate red tape to go through
	trying to stay away from pallet poolingvery expensive. We will only go to it if a customer requires for cross border shipping.
	Typically we use the pallets until they are damaged then discard them.
	We are not experiencing any problems at this time.
	We build pallets to fit custom productsso we use a standard pallet and make modifications to fit
	We do not allow our design to be exposed.
	We do not have the contract to provide pallets. We provide the automated equipment to move them.
	We have an increasing number of pallets from inbound deliveries alone
Not vary interacted	we have internal resources for this job
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	We ship mostly small package
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	We use custom built pallets
	We use them as one way pallets
	What we are doing now works with pallet management.



Low level of procurement. mostly client furnished

No desire to add cost to our current system

Most of our pallets are single use to customers or export.

Most of the pallets we use go out to customer and don't get returned.

Low usage at our small facility

Mandatory government contracts

Integrity of pallets involved

Added evnence





How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

		Added expense
		Because we utilize grade b #2 pallets with 4-way entry
		Cost. We primarily use pallets that we recycle from goods shipped to us. If we require a special pallet, or need to repair, we do it in house. HUGE cost savings.
		Customers
		Does not apply - It would create additional work for our staff
		Don't use enough pallets to consider it.
		Have access to all we need now.
		Have used in the past didn't like the program
Not at all interested is only a one way pallet		Is only a one way pallet
		It doesn't work for us
		It is a significant management effort from accountability & control.
		It would not work for our business
		Location does not lend itself to such options







How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

	No need
	No need to
	No need!
	Not in my area of responsibility
	Not in the budget
	Not needed for this business
	OEM manufacture,
Not at all	One time use of our pallets
interested	One way transport
merestea	Our Consumption is very low and we usually get in more pallets than we send out.
	Our customers do not return the pallets.
	Our own drivers pick up skids from our customers
	Our pallet usage is customer driven
	Our pallets are typically one way trips, one use pallets and to people who don't normally use pallets or don't necessarily want to process them on their end.
	Pallets are shipped & than used by customer.
	Pallets are used for overseas shipments







How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

	PALLETS COME INPALLETS GO OUT. DON'T NEED TO PURCHASE
	Pallets come to us as required
	Problems with wood pieces getting into customer's product
	Recycle customer pallets
	Resending the metal back to supplier means higher freight costs for us
	The cost of building new custom pallets over the return shipping of them from one side of the USA to the other is cheaper
	The service we use to purchase pallets is a requirement by our customer and the service we use to retrieve and recycle our pallets has already been negotiated.
	They are a pain
	Third party will likely cost more than current
	Too expensive & not able to respond to demand fast enough.
Not at all interested	We are end user of pallets. wood gets shipped back with material cores or goes into boiler. plastic gets shipped back. metal gets shipped back or scrapped.
	We are too small for something like that.
	We do not buy a tremendous amount of pallets
	We do not have the volume to warrant this.
	We do not purchase pallets
	We do not see enough need for a service like this
	we do not ship goods; we receive product on pallets
	We get our own pallets
	We have a closed loop shipping system.
	We have a pallet retrieval system installed but it sits idle because it is too costly and it takes up space. plus it is too slow as well.
	We have more than enough stored up and swapped out as needed
	We have no issues with our customer base.







Why do you say you would be interested/not interested in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

	We need consistent pallet dimensions due to automated systems.
	We only purchase new pallets due to strict requirements.
	We recycle our own pallets for internal use
	We recycle pallets from our vendors
	We repair or purchase used pallets and when we ship we charge for the pallet we ship on.
Not at all	We re-use pallets obtained from suppliers
interested	We run a dedicated fleet therefore return pallets on our loads.
	We sell back Chep pallets to Chep
	We sell pallets
	We use low grade shipping skids
	WEAPONS SYSTEMS DO NOT CHANGE SIZES.
	With shipping international, buying from a pool you don't know what you will get.







How interested would you be in using a pallet pooling service managed by the pallet industry and that would serve as an alternative to CHEP, PECO and iGPS, 9Bloc, etc.?

Not at all interested	We need consistent pallet dimensions due to automated systems.
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	WEAPONS SYSTEMS DO NOT CHANGE SIZES.
	With shipping international, buying from a pool you don't know what you will get.







How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

Extremely interested	Great idea
	Two heads better than one
	WE ARE USING PALLETS DAILY VS WEEKLY AS IN PAST YEARS AND NEED TO CONTROL OUR SPEND
	Because we are reviewing all aspects of the category. We think we are doing it well, but I am not sure.
	It will lower our cost and streamline our process
	Need the expertise in dealing with pallets.
Very interested	Safe time and money
very interested	Value proposition is there
	We might come with some cost reduction.
	We review our packaging requirements with outside vendors all the time looking for newer tech that might lower our costs and protect our shipments more effectively







How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

	A cost study would be in order.
	ALWAYS INTERESTED IN CHANGE FOR THE BETTER
	Always looking to improve and lower costs
	Always looking to improve our operations
	For standardization and optimization
	Have few problems
	Haven't tried this before
	I am not aware of these services and do not know if it applicable to the Tier Automotive supply chain.
	More and better information is always welcome. Without knowing how much is involved in such a partnership or service, it is hard to say how feasible it would be for our company.
	More information
Somewhat	Need is not of a major point of need at this time.
interested	Need to see the offering
	Not a critical item of expenditure.
	Not having many issues and not top priority
	Other options may be viable.
	Pallets and packaging of those pallets is a mild concern to us
	Raise of transporting expenses
	Resolve any remaining mold related issues
	Smaller shipping level
	To determine what options may be out there.
	We have a good system in place currently that sees very little to no transport damage
	We have a third-party company we already use.
	We may learn something new.
	we may learn something new.







How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

	\$
	Corporate contracts in place
	Cost
	Cost
	Custom nature of our business
	Do not want to spend the money for a service.
	DOD DECIDES
	Doing fine as is
	Entertainment
	It's not my responsibility. This would be a function of our operations team.
	Likely increase expense and management on our part.
	Local expertise is adequate
	Not a big issue in our department.
Not very	Not a big part of our business
interested	Not interested.
	Not needed we retrieve our own pallets and accessories
	Other priorities
	Our palletizing is already customer specified
	Our Production guys are very adept at performing all of the above. They do it every day all day long.
	Our system works for us
	Pallet usage is not that large
	Pallets are moved internally only. No additional equipment required.
	PALLETS COME INPALLETS GO OUT. DON'T NEED TO PURCHASE
	Ship to customer standards
	Slow down
	Strict internal requirements in place.
	The current operation is basic and simple and at this time there is no need for change.
	This has been discussed before and there was no interest.







How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

Not very interested	We already have a very comprehensive packaging program driven by lean ideas and Six Sigma We are a small company WE AREHAPPY WITH OUR VENDORS We currently use a service for evaluating our packaging. We currently work with our package company for suggestions We do this internally We have a 3rd party local supplier that we use now. We have a current process and infrastructure that would need to be modified to pursue this option We have a full staff for R&D on pallets. We have no problems at the moment. We have no real need for a third party service. Our customers are satisfied with what we are using. We have packaging engineers. We ship mostly small package WE USE STANDARDIZED PACKAGING NOW. EVERYTHING WE SHIP IS STANDARDIZED. We went through it a while back and have a good handle on how to properly secure the material to the pallets
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How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

Why do you say this?

Already done

Already explained no need.

Already in use

Already working with a core partner and am not looking to make a change

Availability

Because we utilize grade b #2 pallets at a cost of \$4.60 each delivered into our outside locations

Been there, done that. This isn't rocket science.

Better at handling our own

Cost

COST PROHIBITIVE and unnecessary.

Cost, is expected to have in house answers

Does not apply to our one-use of pallets

Not at all interested

Don't have that much need

Ease and cost of the current way we are transport packaging.

Hard to control and manage. less flexibility.

HAVE BEEN A CHEP CUSTOMER IN SEVERAL BUSINESSES, AND VERY EXPENSIVE. CONTROL IS DIFFICULT.

have it

I do my own research

Low usage

Low volume.

Mandatory government contracts

Moving to metal pallets

No need

No need

No need for this service

Not enough need







How interested are you/would you be in using a third-party service that would help you better understand the optimal pallet and transport packaging combination (i.e. stretch wrap, shrink wrap, banding, etc.) for your operation?

Why do you say this?

Not in my area of responsibility

Not in the budget

Not interested

Not needed

Not needed

not needed for our operation

Our pallets are typically one way trips and to people who don't normally use pallets or don't necessarily want to process them on their end.

Our product ship out is always to our standards based on items on customer's order

Shipping is OK

The company will not want to spend money to lease.

We already have shrink wrapping solutions.

We are currently handling our pallets just fine at no cost to us

We are non-profit

Not at all interested

We are not very sophisticated. We sell to distributors of fasteners or to OEM's. All industrial users.

We do not have the volume to warrant this.

We do this in house

We have a good handle on this now

We have a highly automated pallet wrapping system that we have invested in.

We have an in-house system in place

We have national accounts we have to use for supplies

We have no issues with our customer base

We have our own internal staff who informs us.

We have our own packaging engineers.

We have our own packaging people

We repair pallet and resale them

We sell the supplies for packaging and shipping.

We've been in the business a long time and know what works. Experience is the best teacher

Wood stringer pallets work & are accepted. No reason to change