



Presentation to



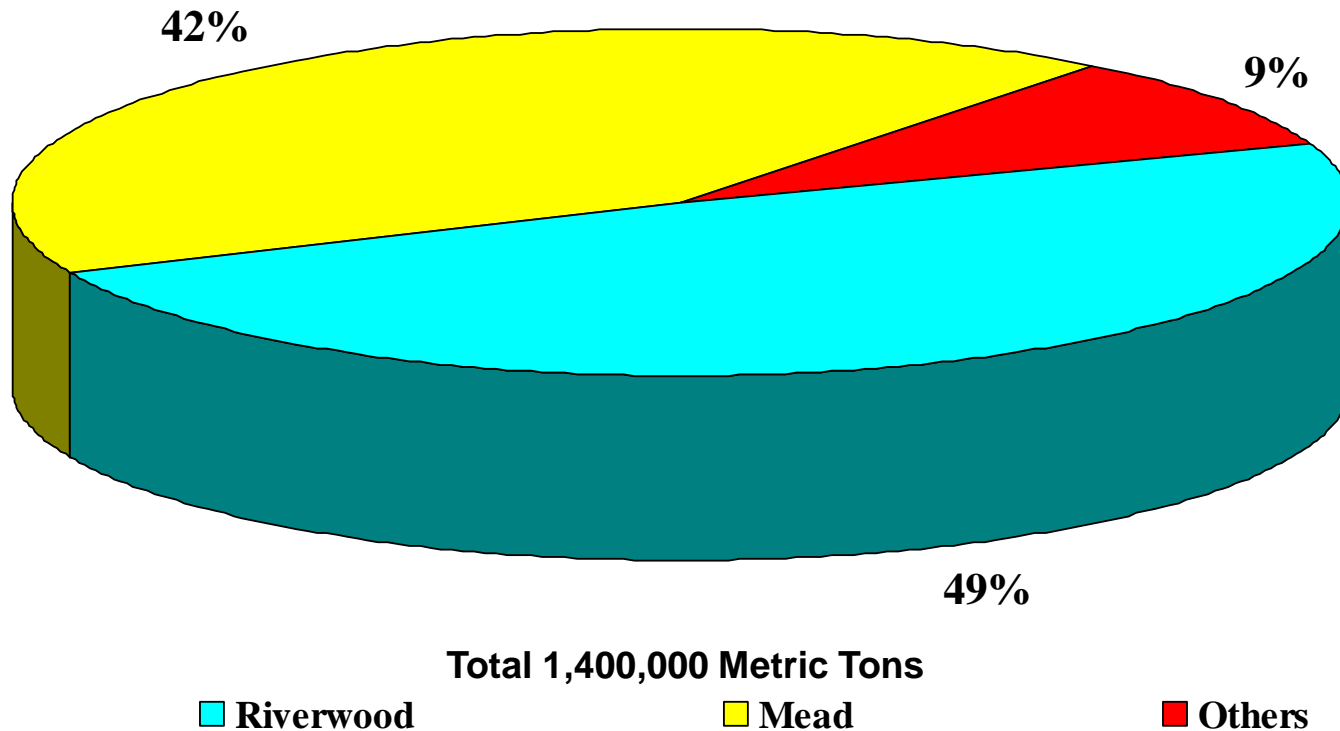


Presentation to Klabin - Agenda

- Global Beverage Market
- U.S. Beverage Market
- Competitive Benchmark
- Price Trends
- Mead and Riverwood
- Machine System Benchmark
- Opportunities and Strategy



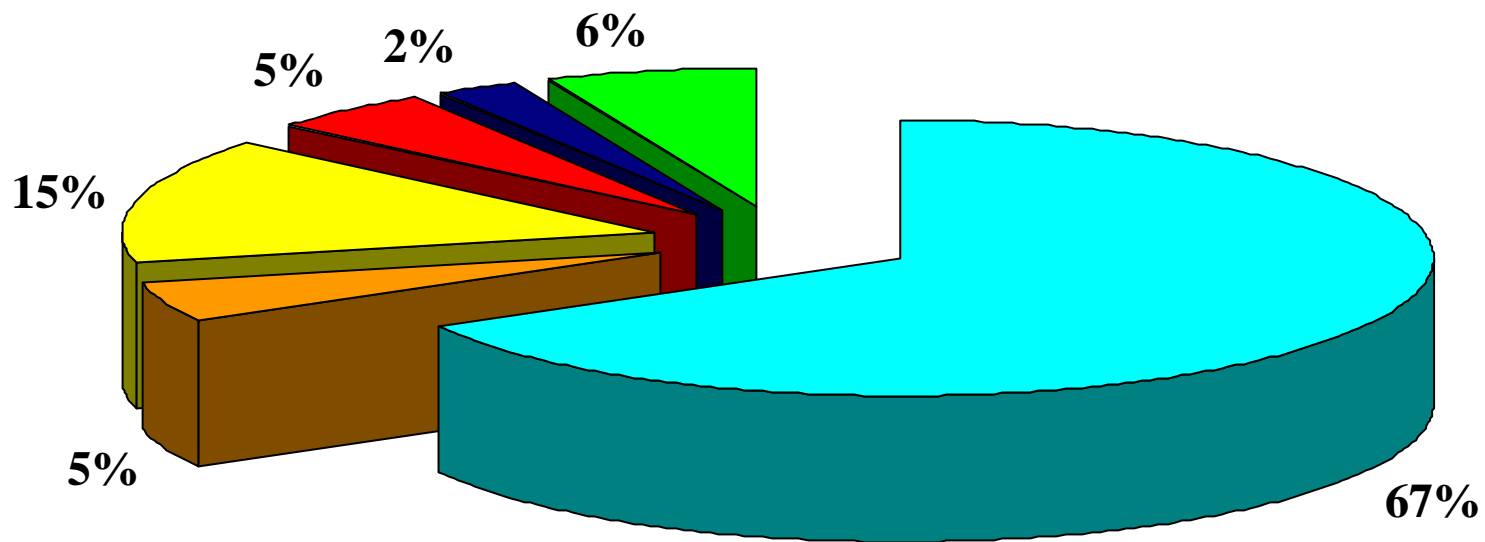
2001 Global Beverage Paperboard Market Share



Source: Industry Sources, Paperboard International Estimates



Global Beverage Market by Country



Total 1,400,000 Metric Tons

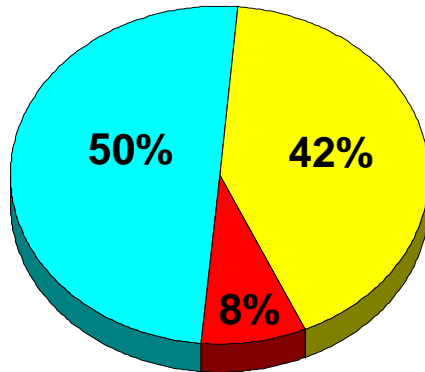
■ U.S.
 ■ Canada
 ■ Europe
 ■ Mexico
 ■ Latin America
 ■ Asia

Source: Industry Sources, Paperboard International Estimates

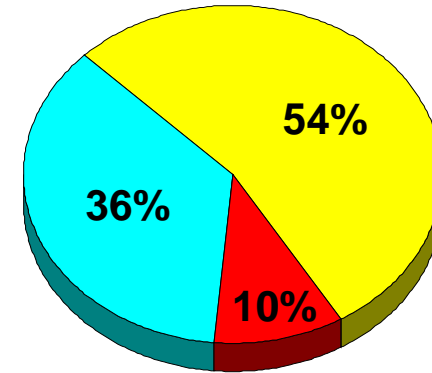


2001 Global Market Share by Region

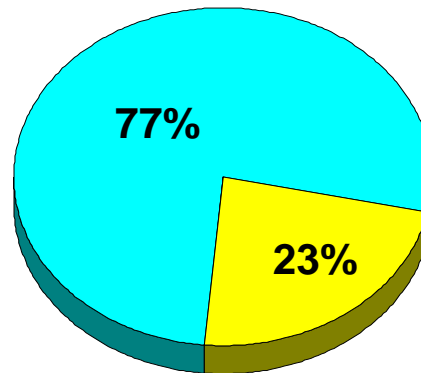
North America



Europe



Asia Pacific



 RVW

 Mead

 Others



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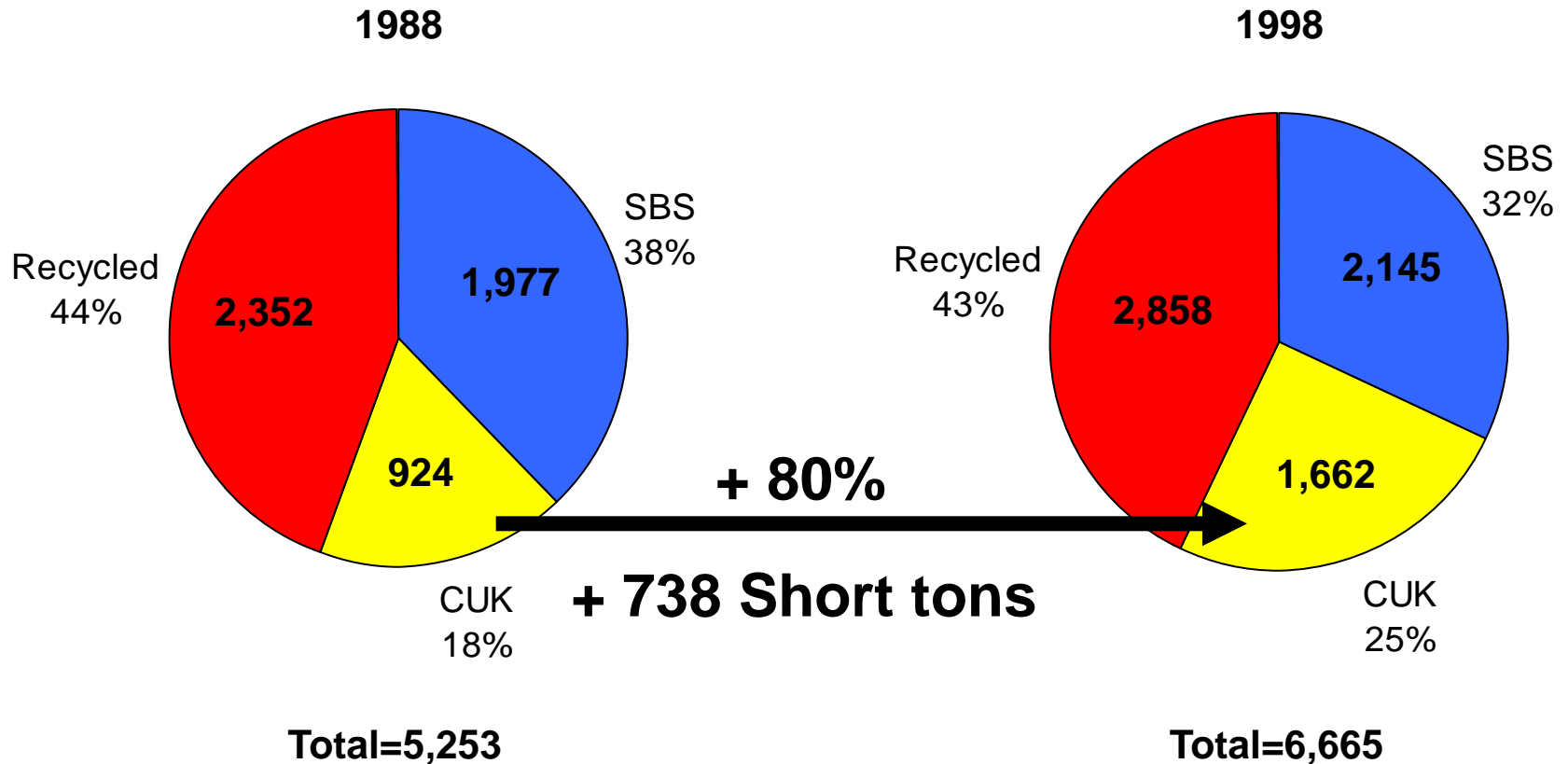
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U.S. Paperboard Market

CUK Growth Has Out-Performed U.S. Paperboard Industry Growth

(000's Short Tons)

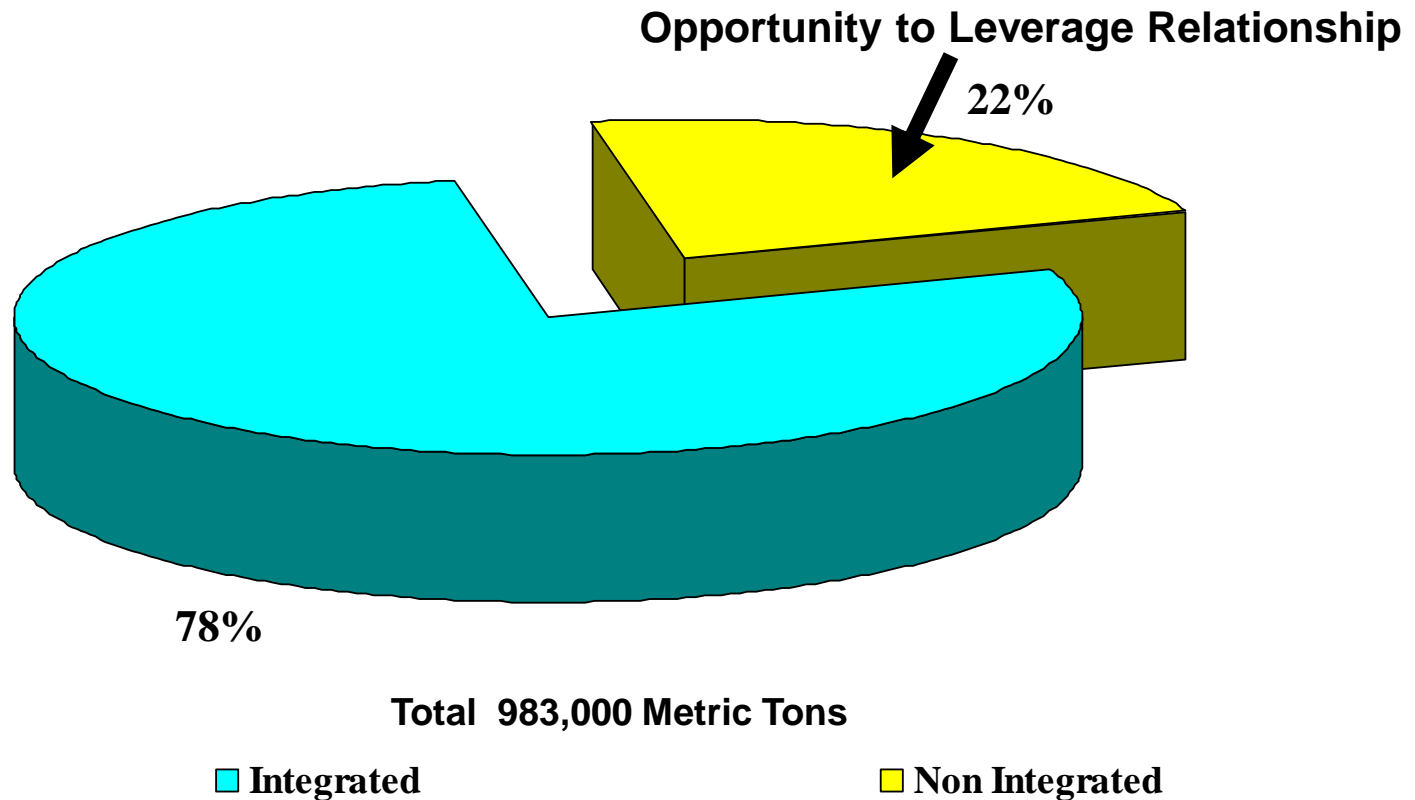


Source: Industry Sources, Paperboard International Estimates



U.S. Beverage Market

Integrated versus Non Integrated Converters



Source: Industry Sources, Paperboard International Estimates



Beverage Carrierboard Supply Chain

Board Supplier



Converting



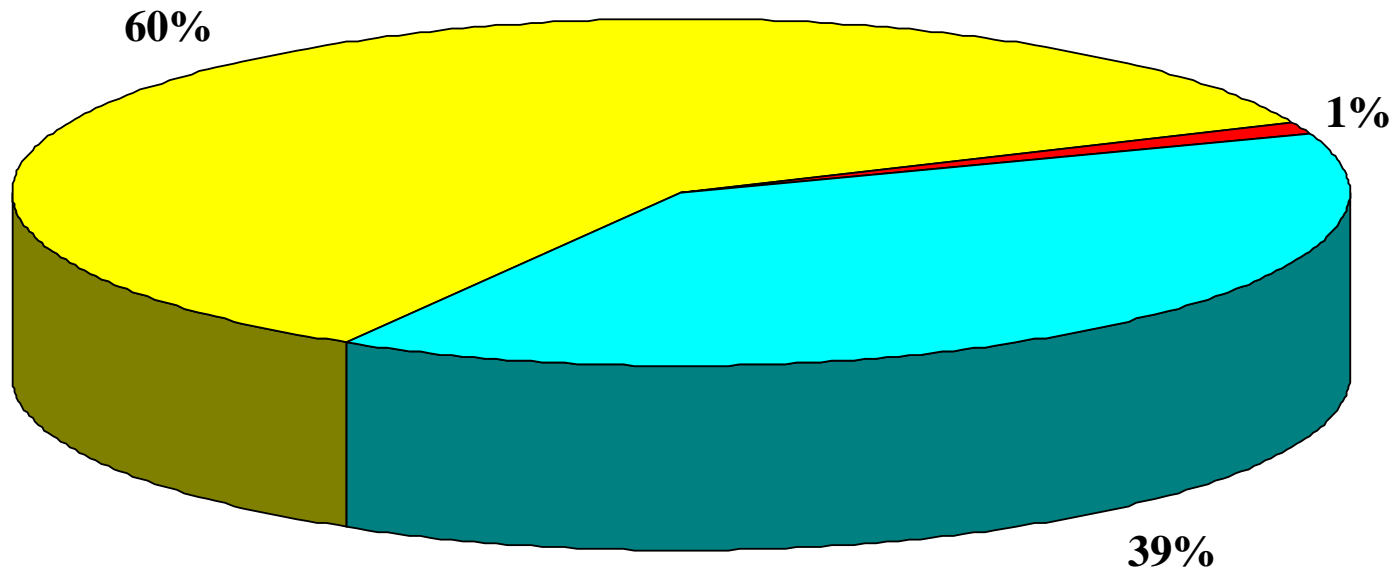
Packaging Machines





U.S. Soft Drink Market

Market share by board Supplier



Total 432,000 Metric Tons

 Riverwood

 Mead

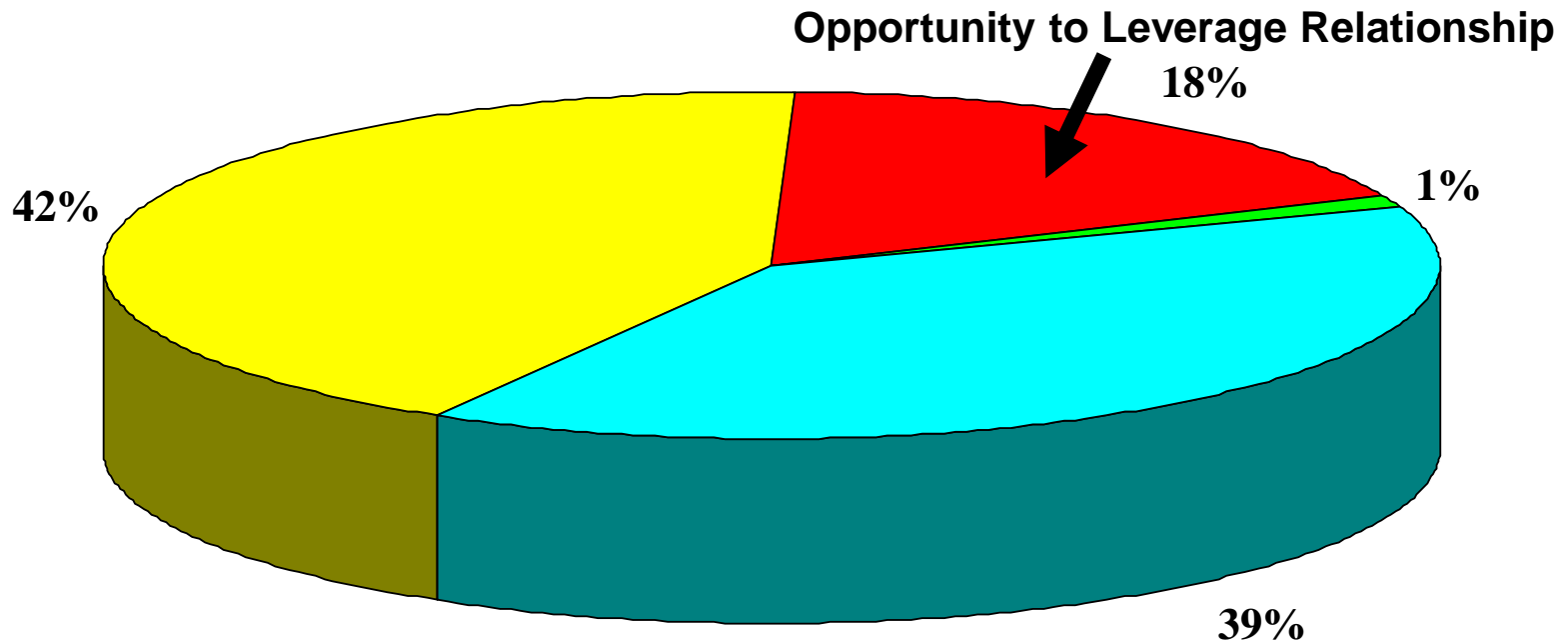
 Smurfit

Source: Industry Sources, Paperboard International Estimates



U.S. Soft Drink Market

Market share by Converter



Total 432,000 Metric Tons

 Riverwood

 Mead

 Zumbiel

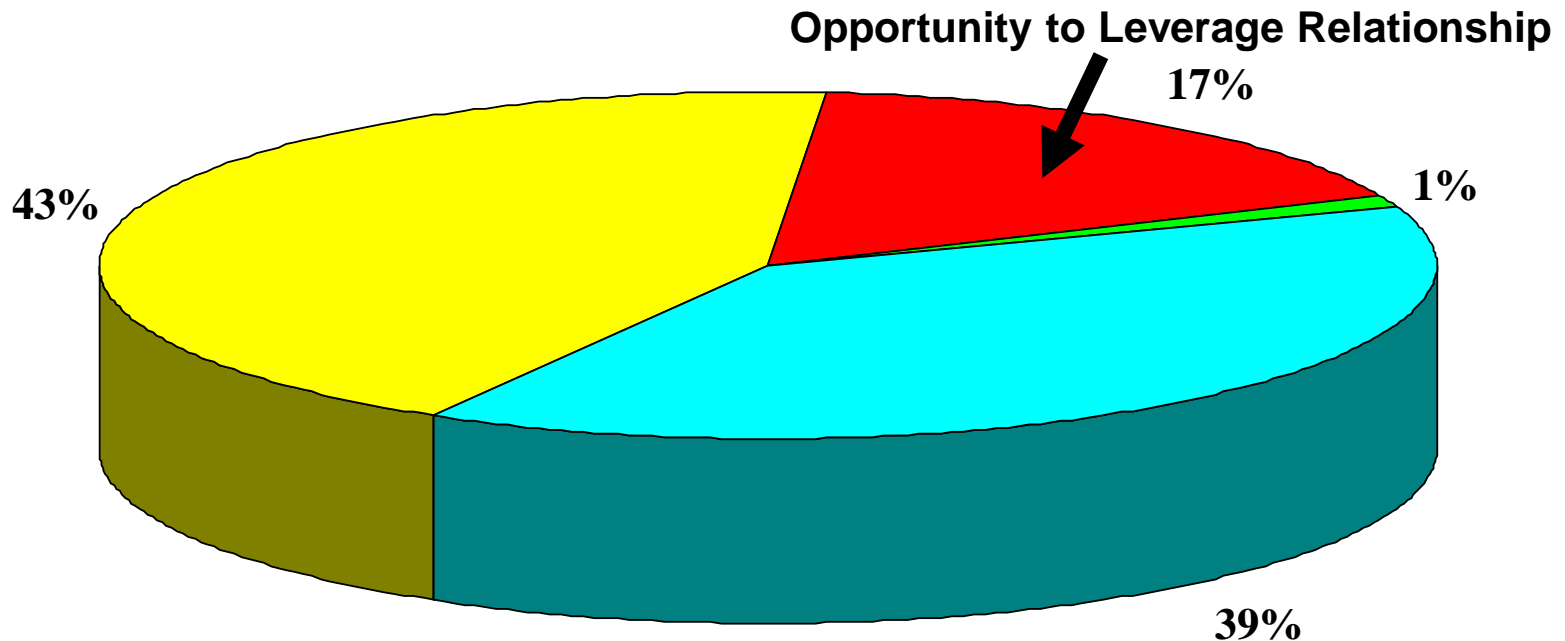
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Source: Industry Sources, Paperboard International Estimates



U.S. Soft Drink Market

Market share by Machine Placements



Total 432,000 Metric Tons

■ Riverwood

■ Mead

■ Zumbiel

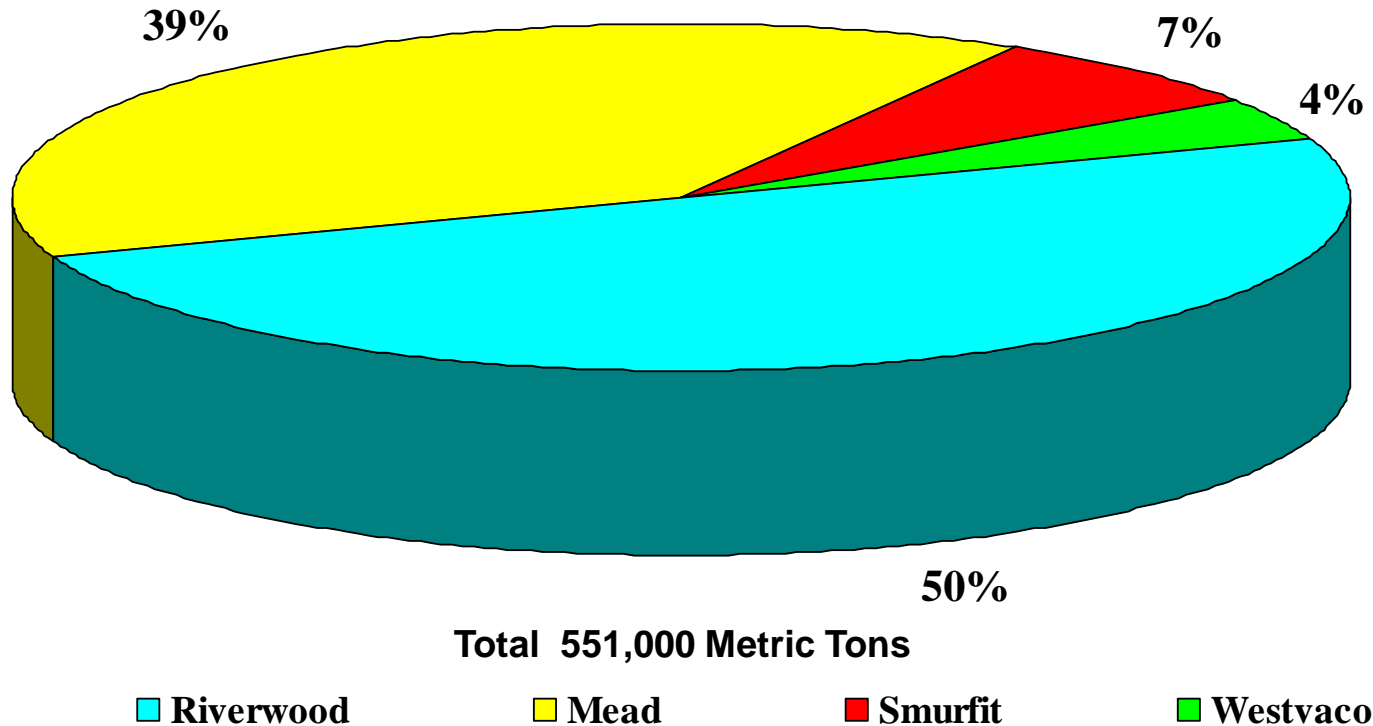
■ Jones

Source: Industry Sources, Paperboard International Estimates



U.S. Beer Market

Market share by board Supplier

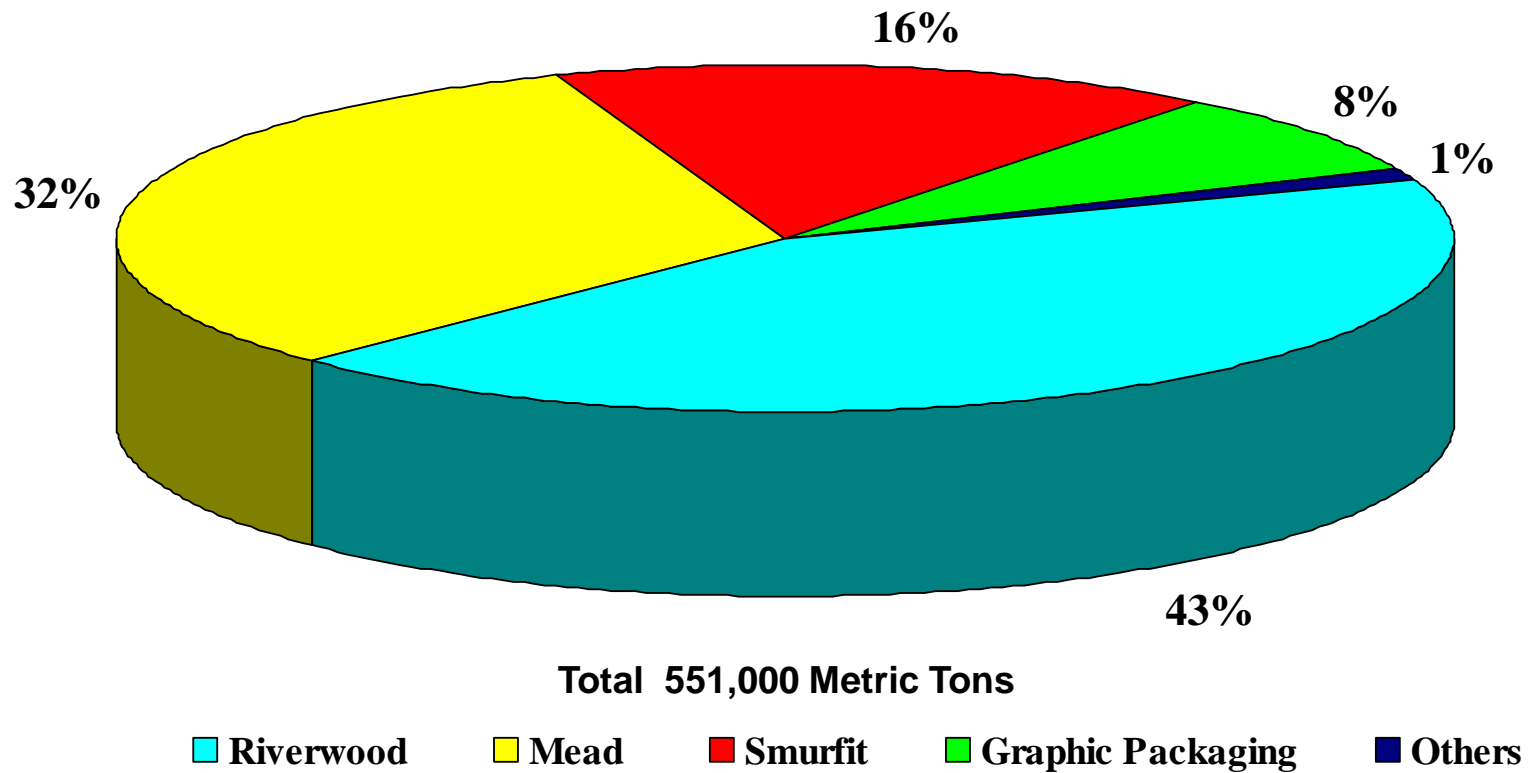


Source: Industry Sources, Paperboard International Estimates



U.S. Beer Market

Market share by Converter

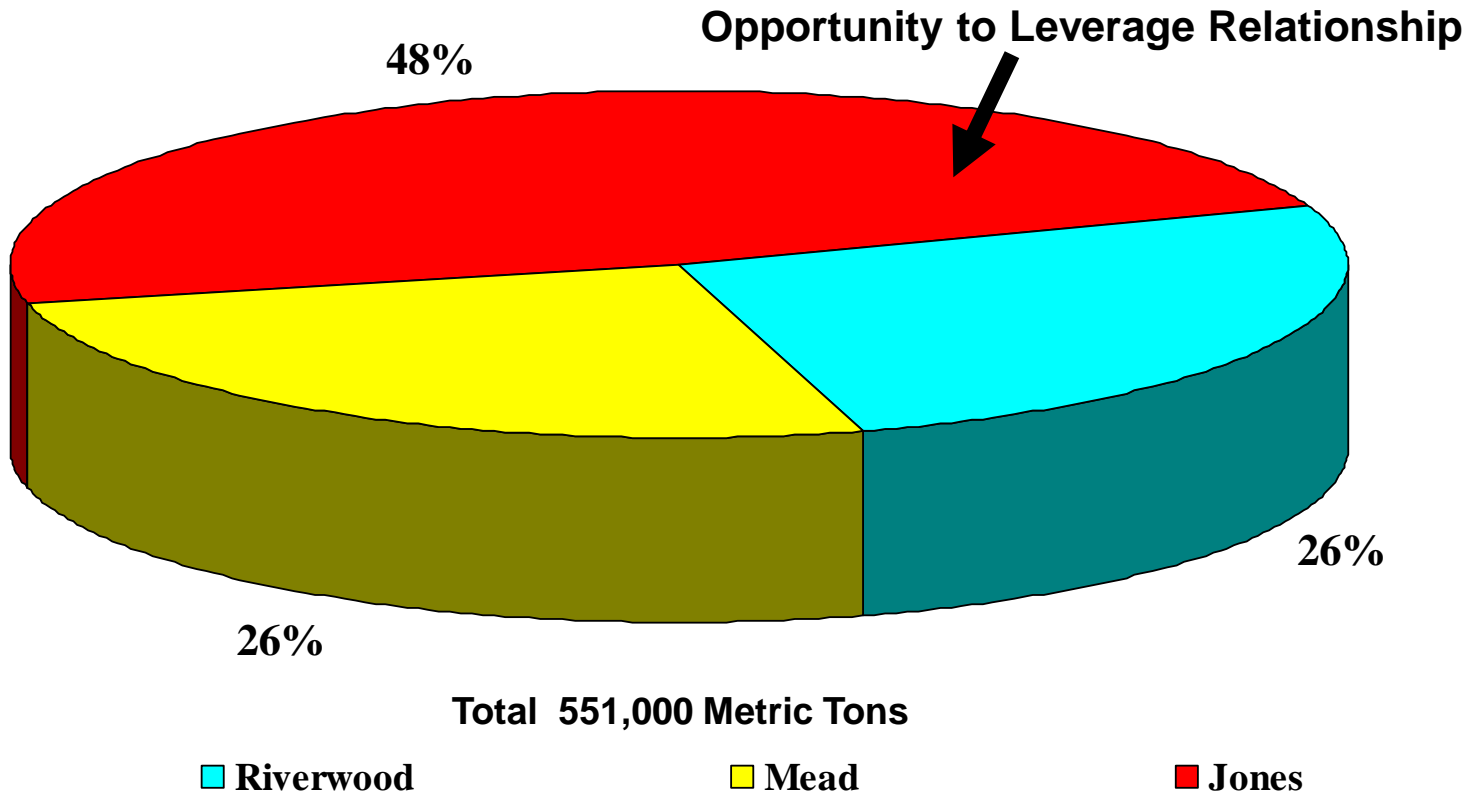


Source: Industry Sources, Paperboard International Estimates



U.S. Beer Market

Market share by Machine Placements



Source: Industry Sources, Paperboard International Estimates



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Klabin Carrierboard

- Carrierboard is made on MP7
 - 3 plies machine. Base ply is a fourdrinier and top ply is minifourdrinier

- Investments of \$100 million from 1997 to 2000 to increase capacity and improve the product
 - 1997 rebuilt of the back side head box
 - 1998 rebuilt of the top ply head box
 - 2000 investment of \$33 million in a new coater on line
 - 2000 capacity increase of 50,000 tons

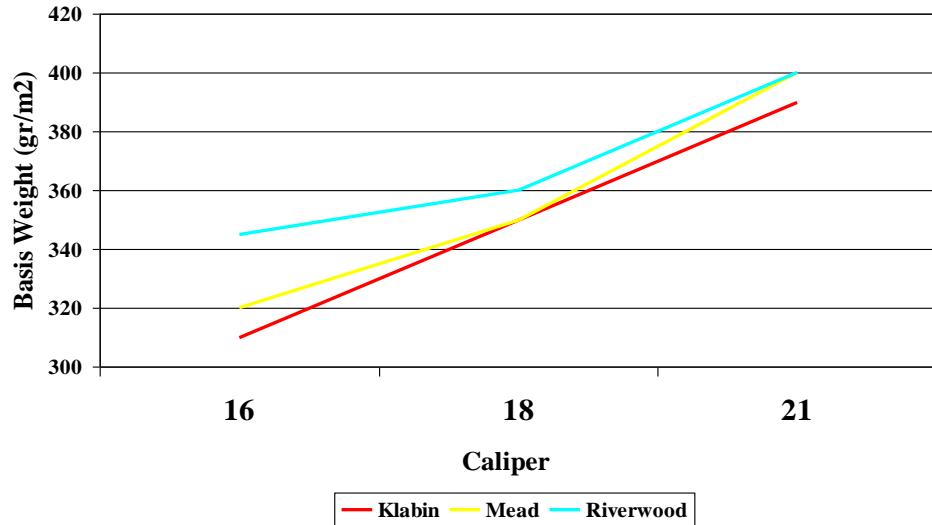
- Fiber pine and Eucalyptus

- In 1998 Klabin add wet strength to its product

- Klabin announces its intention of rebuilt a newsprint machine to produce cardboard in 2003 in 2000 Annual Report (Portuguese version)



At equal caliper Klabin has a basis weight advantage over Mead and Riverwood



- At 16 points Klabin has a basis weight advantage of 3% over Mead and 11% over Riverwood
- At 18 points Klabin has a 3% basis weight advantage over Riverwood
- At 18 points Klabin has no basis weight advantage over Mead
- At 21 points Klabin has a 3% basis weight advantage over Mead and Riverwood

Mead		Riverwood		Klabin		Basis Weight Differences Versus	
Caliper	BW	Caliper	BW	Caliper	BW	Mead	RVW
16	320	16	345	16	310	3%	11%
18	350	18	360	18	350	0%	3%
21	400	21	400	21	390	3%	3%

Source: Recent Published Specifications



Printability of Klabin Carrierboard versus Mead Carrier and Riverwood AK

- Klabin coating weight is 5lb/1000ft² while Mead has 6.6lb/1000ft² and Riverwood has 6.3 lb/1000ft²
- Klabin coating has a cream shade while Mead And Riverwood have a blue shade.
 - Beverage blue colors tends to print better on a blue shade
- Klabin Parker Print is 2.1 μm similar than Mead 2.6 μm and Riverwood 2.2 μm
- Klabin Sheffield Smoothness is 125 similar to Riverwood 130 and better than Mead +200



Coarse Basesheet Formation and Low Coating/Top Sheet Opacity are the Primary Shortcoming of Klabin Carrier

- Klabin coating structure reflects the formation of underlying (bleached) top
 - Produces a slight mottle when printing colors as blue solid
 - Riverwood and Mead produces this mottle in a smaller scale

- This problem might be fixed by
 - Increasing the coating opacity
 - Adding filler to the white top
 - Improving basesheet formation

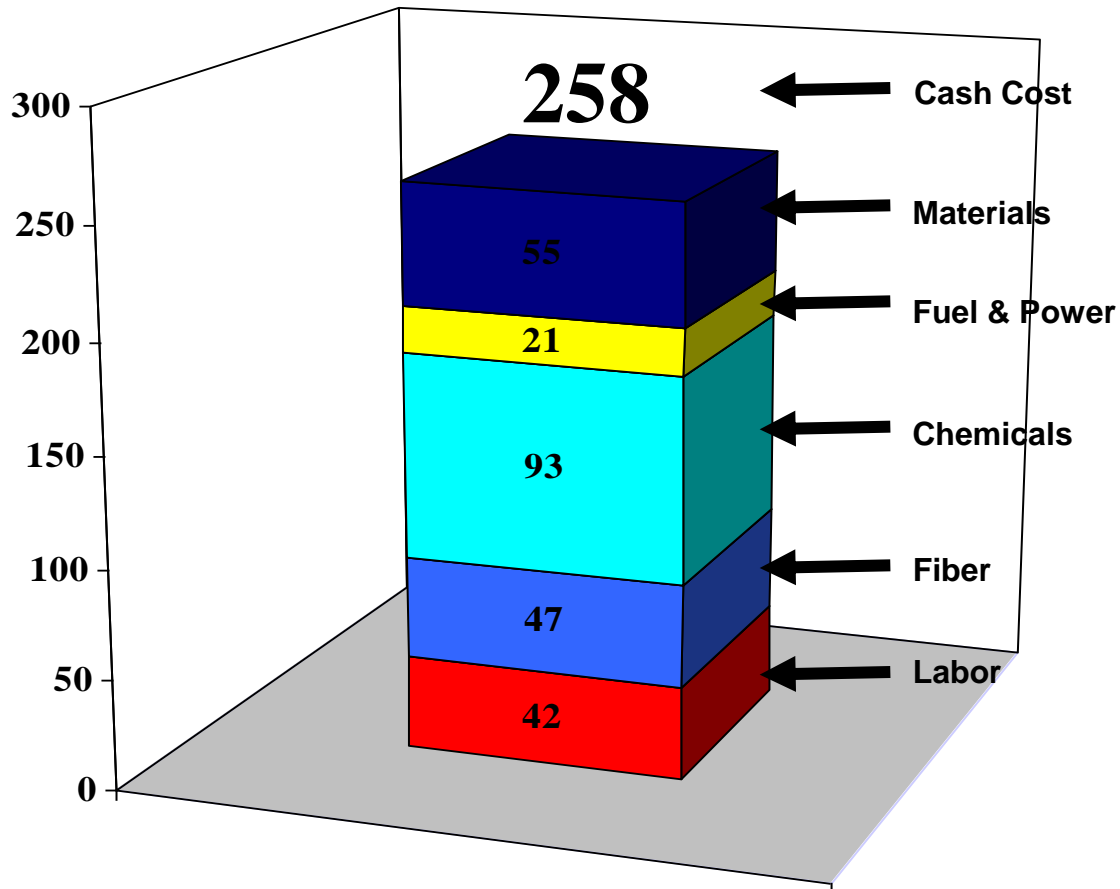


Klabin Carrier Specs Should be Modified to Address U.S. Standards

- Klabin specs 80% of wet tear retention while Mead and Riverwood have 90% of wet tear retention
- Riverwood and Mead Specs show target values rather minimal
- Klabin specs should be develop to address U.S. standard specs
 - Include Parker Print and Sheffield smoothness tests
 - Include measurement of gloss and moisture
 - Include values for wet tear
 - Taber stiffness should be expressed in gf.cm
 - Elemendorf dry and wet tears should be expressed in gf



Klabin Manufacturing Cost Benchmark \$/MT

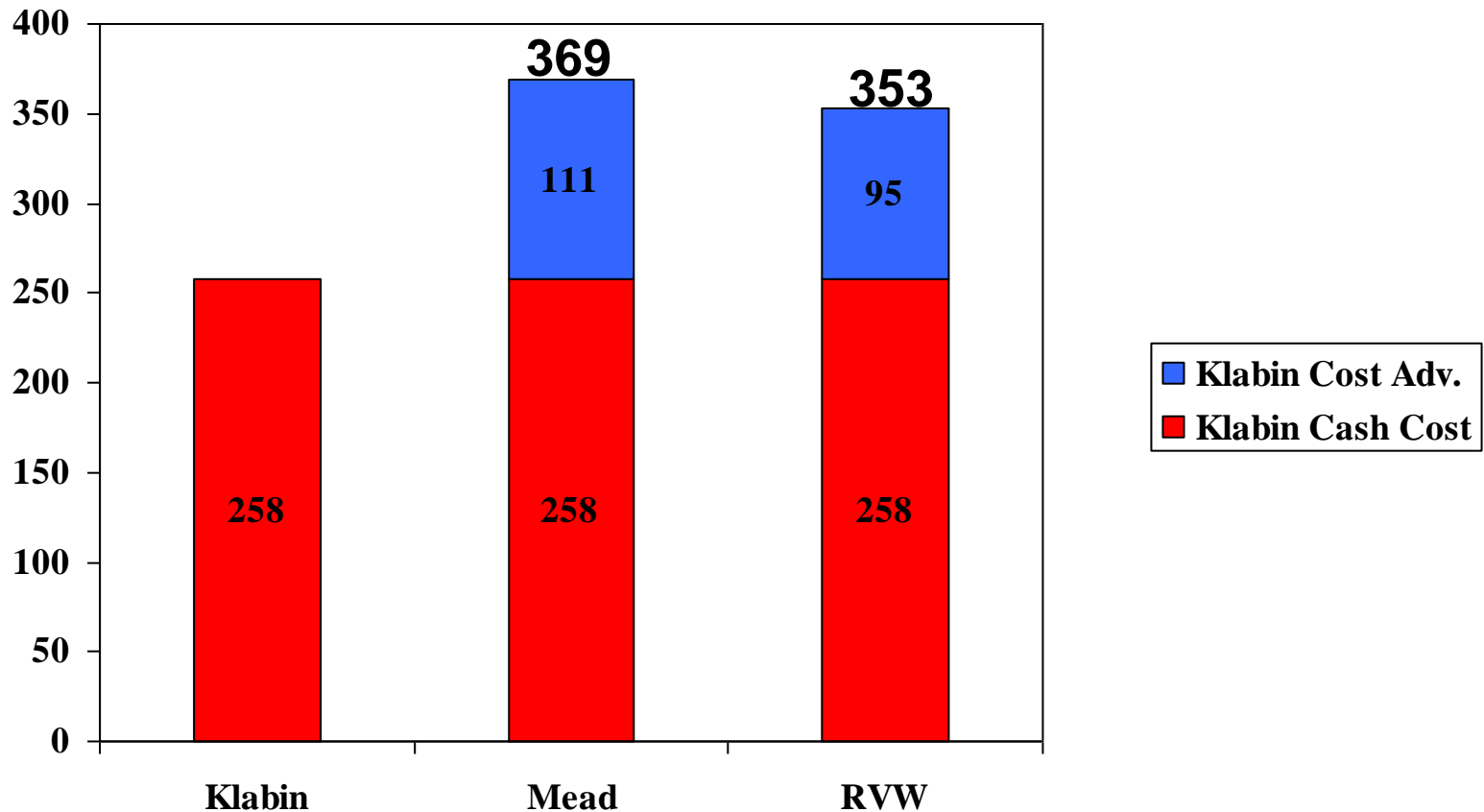


Source: Industry Sources, Paperboard International Estimates



Klabin has a Significant Manufacturing Cost Advantage versus Mead and Riverwood

Cash Cost \$/MT

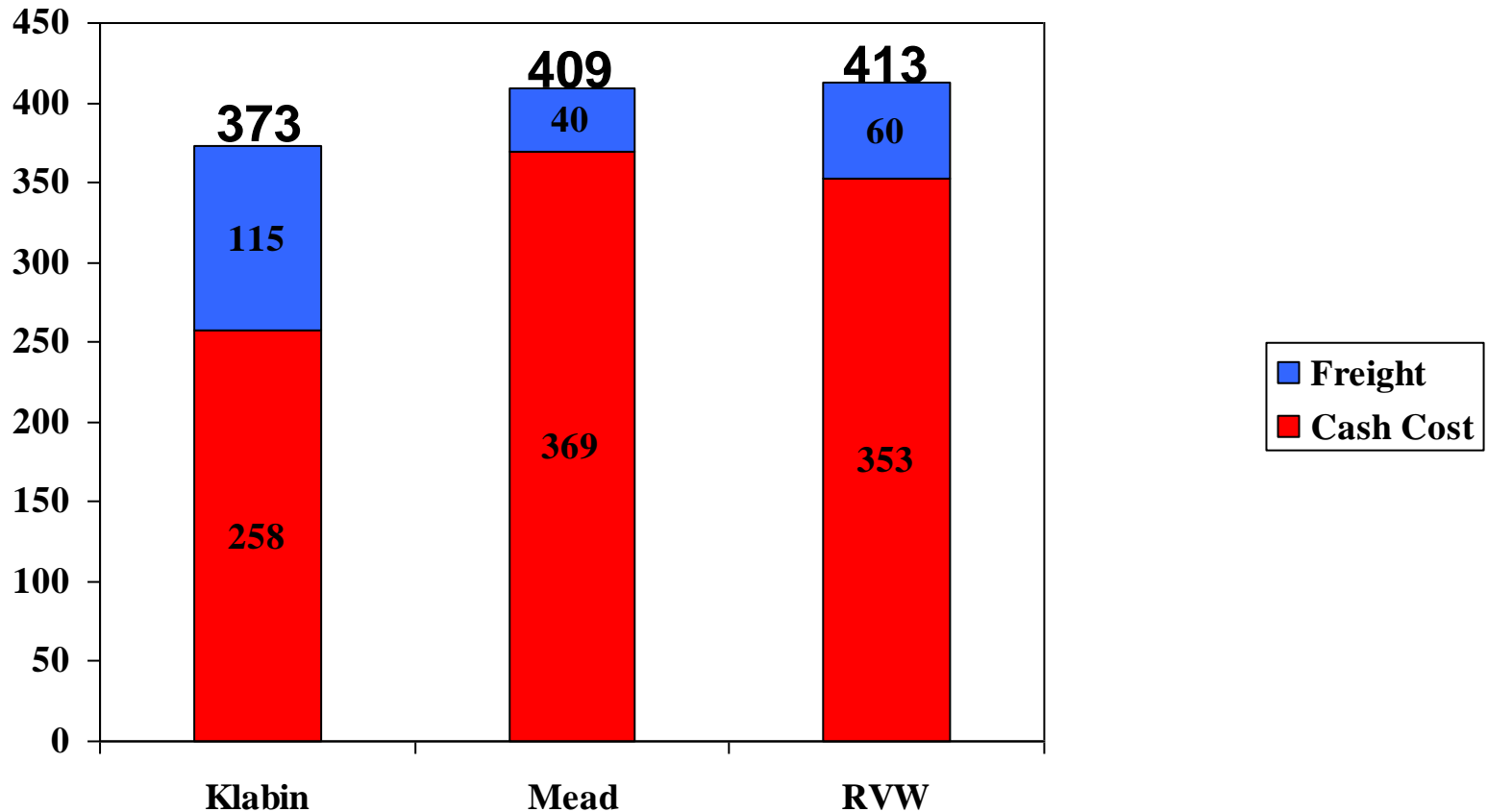


Source: Industry Sources, Paperboard International Estimates



Klabin has a 10%-11% Delivery Cost Advantage over Mead and Riverwood

Delivery Cash Cost to Cincinnati, Ohio, U.S. \$/MT



Source: Industry Sources, Paperboard International Estimates



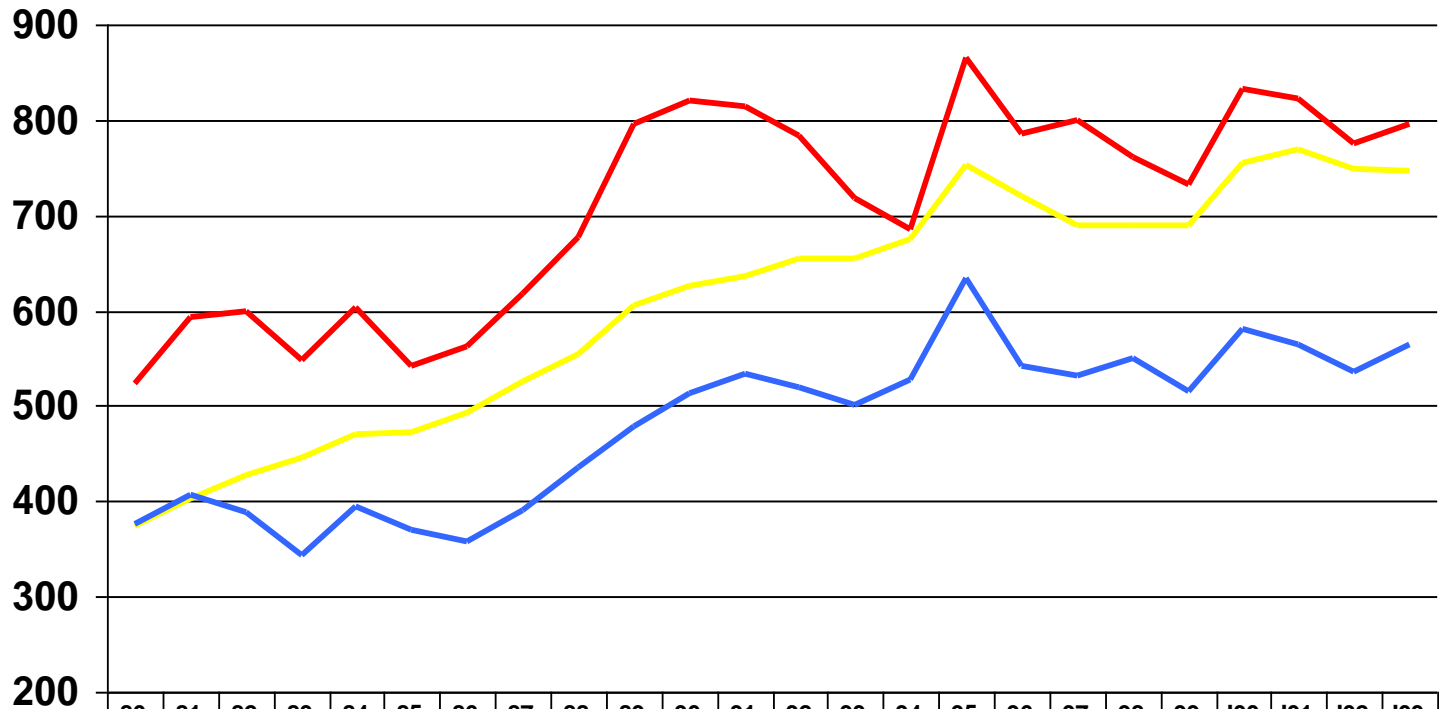
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U.S. Pricing of Paperboard 1980 - 2002

RISI Data -- (\$/ST)



	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	'00	'01	'02	'03
15 pt RISI SBS	523	593	600	548	604	541	562	617	677	795	821	815	784	718	685	865	786	800	760	733	832	823	775	795
20 pt RISI CUK Carrier	375	402	427	445	470	473	493	525	555	605	625	636	655	655	675	753	720	690	690	690	755	770	748	747
20 pt RISI CCN	377	406	389	344	394	369	358	391	436	478	513	534	519	500	528	634	542	531	550	515	581	565	535	564

Source: Resource Information Systems, Inc.



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Mead and Riverwood Integrated Strategy

- Integrated strategy has successfully tied volume from major customers
- Integrated strategy has not been successful in delivering premium returns to Mead and Riverwood
 - Grew market share, but experienced large negative profits and negative cash flow
 - Mistakenly believed that board margin would be sufficient to cover subsidies of machine sales and low carton margins
- Customers believed that they are in disadvantage
 - Thought that cartons priced are too high (excess converting and mill capacity fuels this belief)
 - Want flexibility to run multiple substrates on packaging machines



Mead and Riverwood Strengths and Weaknesses

- Mead and Riverwood are struggling to make money
 - They built big global Integrated organizations with huge fixed costs that surpass the profit generated for a niche beverage board
- Cost reduction is the name of the game
 - There are few or no investment in improving the beverage board
- Mead and Westvaco might find economies of scope to reduce costs, but might lose volume from customers that compete with Westvaco
- Riverwood is for sale with no real bidder
- Both take downtime rather than flood the market
- Both will protect market share
- They keep control of soft drink carton supply by leasing the machines
- 48% of the beer packaging machines are owned by brewers



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System Comparisons

	Riverwood	Mead	Jones
MACHINE STYLE			
WRAP	<p>MM2100 is a very competitive machine, but still lacks some of the features offered by competitors, and is relatively new</p> <p>Marksman 1600 is a solid niche machine with a good performance and placement record, particularly in Japan</p>	<p>Market leader with large number of installed CP 850 systems, particularly in Europe. Mead wrap machines offer the ability to run the wider variety of carton styles preferred by customers</p>	No Entry
BASKET	<p>New AF1500 system offers excellent flexibility and performance. 6-crease basket style allows fully enclosed, neck-through and over-the-crown designs</p>	<p>Solid product line with numerous placements. 4-crease basket style fits with Mead's "One Tech" modularity. May have lost market leadership position with introduction of Riverwood's AF1500</p>	No Entry
FULLY ENCLOSED Single Layer	<p>Older systems were solid performers</p> <p>Newer systems (QF600/ QF600c & QF2100) offer excellent flexibility and performance and have become the industry benchmark</p>	<p>Significant installed base of older machines with US soft drink customers. Miller and AB do not view Mead as a legitimate machinery supplier.</p> <p>Very large base of rebuildable 1225 & 1228 machines. Newer 1250 systems are not as highly regarded.</p>	<p>Existing systems are solid performers. They have earned an excellent reputation for high quality/high performance equipment through years of experience in the brewing industry. Machines are more expensive than Riverwood systems.</p> <p>New Maxim system is unproven, but is a significant potential threat to integrated suppliers and is an entrée into the soft drink market</p>
FULLY ENCLOSED Two Layer	<p>Market Leader with over 100 Twin-Stack machines installed worldwide</p>	<p>Follower with inferior machine and relatively few placements</p>	<p>AB has had several Jones Multi-Stack machines for years. These are long and expensive machines.</p> <p>The new Maxim machine is reported to have a "stacking" option. AB has a new multi-stack Maxim machine that can also run corrugated</p>



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Opportunities for Klabin and Paperboard International - Zumbiel

- Started in 1843, largest independent beverage converter in the U.S.
- 2 Plants located in Cincinnati
- Consumption of 75,000 metric tons per year of Carrierboard
- Potential of 20,000 tons/year
- Establish soft drink supplier with 18% of the soft drink multiple packaging market share
- Excellent payment record
- Right equipment to be competitive
 - 70% Flexo (2 or 3 new flexos)
 - 30% Gravure (old Gravure presses)
 - Large Planeta Offset
- Zumbiel has its own Packaging machine line with 17% of the soft drink machine placements
- Customers include Pepsi, Coke, Kroger Big K, Dr. Pepper, 7-Up, AB, P&G



Opportunities for Klabin and Paperboard International - Pepsi

- Pepsi is determined to break the bundled system from Mead/Riverwood
 - Believe that premium paid for integrated system is superior to its value
- Bought 4 Jones machines to run Smurfit recycle wet strength board
- Zumbiel has several machine placement at Pepsi
- Excellent payment record
- Global Purchasing Manager interested in Klabin board
- Potential of 10,000 to 20,000 tons the first year
- Initial 12- pack test passed structural test and printing is fine
- Cartons are going to be filled on Pepsi packaging machines and distributed to the market on a very limited base to perform distribution tests
- Schedule Pepsi cube test



Pepsi/Zumbiel Bid

- Price \$530-\$540/MT FOB Paranagua
- Potential of 10,000 - 20,000 MT/year
- Suggested credit terms 1% 20 days, net 30 days
 - Days count from the nationalization date of the board in the U.S.
- Customer wants one invoice from Klabin
 - Price will be FOB Paraguana + Freight + Custom Broker + insurance+ PI commission
 - Quote from Star Shipping of \$115/MT
 - Custom Broker less than \$2/MT
 - Insurance 0.5% of 110% FOB value no more than \$3.79 MT
- Next Steps
 - Wait for results of distribution test
 - End User Commitment
 - Converter commitment



Opportunities for Klabin and Paperboard International - AB

- Anheuser Busch has 48.3% of the U.S. beer market
- AB has broken the integrated system from Mead/RVW
 - 70-80% packaging machines are Jones Machines
- Paperboard International has identified a converter in West Monroe that is willing to bid on AB business with Klabin carrierboard
- Customer has a converting capacity of 32,000 MT/year
 - 2 Offset presses and 1 flexo press
- FOB Paranagua price of \$540-\$550 per MT
- Excellent payment record
 - Pay Mead cash versus delivery



Opportunities for Klabin and Paperboard International - Standard Paperboard

- Consumes +9,000 MT/year
- Customers are microbrewers
- Riverwood customer
- Price to be investigated depending on freight but we believe that is +\$540/MT FOB Paranagua
- Good payment record
- Equipment: large offset presses



Opportunities for Klabin and Paperboard International - Others

- Smurfit -- runs several old gravure presses
- IP -- Lost 30,000 MT of AB business versus Riverwood
 - Closed Clinton beverage plant (650 people, 2 web offset, 2 old gravures)
 - Still has a beverage plant in Wilmington, NC (5 web gravure)
 - Pepsi complaint about poor service
- Miller -- 100% Riverwood business
 - Happy with Riverwood
 - Riverwood will fiercely defend Miller business
- Coca-Cola
 - Coca-Cola Global Purchasing negotiating one-price strategy, or unbundling products
 - Most packaging machines are either Mead or Riverwood
 - Mead will fiercely defend Coke business



At Paperboard International

- Have the knowledge of the paperboard market in the world
- Develop analytical models to forecast paperboard demand, segment the demand and anticipate changes in prices
 - Include industry variables and economic indicators
- Understand cost structures, cost to serve and exchange rate swings
- Analyze customer needs versus supplier offers to identify
 - **Where the opportunities are and we develop winner strategies to go for**
- Anticipate market demand ups and down and bring information over time even if it is bad for you or us



At Paperboard International

- Have relationships with both converters and end users
 - Any time that the converter try to step in the way we put red flat
- We like to develop trust over time
- Understand what a large account deserve and what you deserve that is a fair deal
- Find opportunities than bring real value for both you and the converter
- Can provide you all the information about any account in the world
 - Payment record, age of equipment, personality of plant manager, utilization rate



Paperboard International will administrate the relationship between Klabin and the customer

- Coordinating the order cycle: Order planning, forecast, order taking, order acknowledge, production schedule, delivery time, customs
 - Transacting the orders between metric and English system
- Managing and resolution of complaints
- Credit returns
- Monitoring payments within terms
- Analyzing the market to anticipate price and demand cycles
 - Bringing real value opportunities to Klabin



Both Klabin and Paperboard International will have to face

- Competitive reaction
 - Mead and Riverwood might fiercely defend their business
 - They have run to reduce price and defend the business
 - We have to be very selective over the account targeting
- Converter behavior
 - There are some customers that are not interested in a real commitment and only want to use us to get a price reduction versus Mead/Riverwood
 - PI pressure hard for a commitment of 1-2 years
 - Other converters might try to force their profit against the supply chain
 - Changing the rules of the game in the middle of the negotiation
 - Playing with exchange rates



Proposed U.S. Entry Strategy

- Low profile entry with selected customers and end users that have strategic reasons to pursue another source of paperboard
- Select converters that have
 - Right equipment
 - Right location
 - Excellent payment record
 - Right quality
 - Interested in being low profile about Klabin board
- Select end users with
 - Existing packaging machines that are not Mead/Riverwood
 - Unhappy with the bundled system
 - They are not the key account for Mead or Riverwood



2002 Tonnage

- U.S. -- Minimal 2,000 - 5000 MT -- Upside to be determined
 - Zumbiel is giving us a hard time making a volume commitment
 - Need to get firm commitment from End User
 - Pepsi is interested in the product
 - Zumbiel converting -- 1- 2 months after distribution test
 - West Monroe Converting -- Have to be approved by Pepsi. Time to be determined
 - AB -- AB cartons converted in West Monroe
- Europe -- Existing relationships help us to bring tonnage right away
 - Price Euros 630/MT in reels and Euros 750/MT in sheets delivered
 - Trial can be scheduled to send next week
 - Carrierboard 18 pt -- A&R Cartons -- **5,000 MT** this year orders beginning 1-2 months after they received the trial roll -- North Holland
 - Liquid Packaging Yogurt multiple packaging --Grammage 245 gr/m2 and 285 gr/m2. Roll widths 140 cm, 98.8 cm, 99.7 cm -- **3,000 - 5,000 MT** this year orders beginning 1-2 months after they received the trial roll -- Finland -- port near Helsinki



**Key to success is to focus
in customers that are
interested in another
source of paperboard for
other reasons more than
cost reasons**



No one likes to practice

We are all professionals