



REPORT & ANALYSIS: THE EUROPEAN NARROW WEB MARKET

Dear FINAT Member,

Before you lies the sixth edition of the FINAT RADAR. This edition focuses on the viewpoint of the end-user. I would like to express my gratitude to all the companies that provided market research firm LPC with the necessary data to present an up-to-date assessment of the European label market.

For this edition, more than 70 brand owners from every major European region were surveyed. It is worth noting that an average of 65-75% of the same brand owners participate year after year. This ensures that our RADAR indices reflect the true movements of the market.

Although the answers to questions such as purchasing behaviour, loyalty to label vendors, and sourcing projections are fairly straightforward, we have noticed that there is still work for FINAT to do when it comes to enhancing sustainability awareness. In the foreseeable future brand owners will demand more environmental certification from their label vendors. On the other hand however the survey shows that brand owners, even though they are fine tuning their sustainability strategies, are not yet that familiar with existing options for recycling their liner waste. This is particularly the case with smaller, regional brands. The most important reason for not recycling brand owners cited was the lack of suitable collection logistics and transport to recycling facilities.

Putting sustainability into practice has been and will still be a key focus of FINAT's public affairs agenda. In our 2016 Yearbook we reported about new projects launched to help our members and the entire self-adhesive label industry ensure a sustainable future. The FINAT release liner recycling fact finding study, commissioned to AWA Alexander Watson Associates, is one more step in the right direction. This study provides insights into the current state of practice in the 10 largest EU member states of release liner recycling, including waste management and recycling legislation, barriers to recycling, available end-of-life solutions and an understanding of the breakdown between recycling, landfill and incineration of liner. Discussions with major stakeholders and action plans will culminate in an extensive promotion campaign to educate label printers and brand owners alike about economically viable recycling programmes.

Who knows, in the next RADAR, we may be reporting about a major increase in the use of these recycling programmes.

For the time being, I wish you all the best for the New Year. I hope to see you at the European Label Forum 2017, taking place 7-9 June in Berlin, where we will present the latest figures of our industry's dashboard.

Best regards,
Thomas Hagmaier
FINAT President

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Researched and compiled by LPC, Inc.



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SCOPE OF THE REPORT

In 2016 the Eurozone has demonstrated resilience in the face of heightened global uncertainty. GDP growth has been supported by steady domestic demand, however a weakening external (export) sector and continued geopolitical unrest make predicting what 2017 will bring a challenging task.

According to surveyed brand owners, label procurement volume growth will remain fairly steady. In the fourth quarter of 2015 brand owners indicated that average label procurement growth for the coming year was 3.61%. In this year's survey, brand owners indicate average label procurement growth in 2017 will be 3.43%. Brand owner loyalty to their label vendors remains steady with 41% of surveyed companies indicating they will be staying with their existing label suppliers for all categories while 44% indicated they will be putting some of their business out to bid.

Self-adhesive labelling decoration is forecasted to have a better year in 2017. More than 70% of surveyed brands claim they will not be migrating from self-adhesive labelling technology to another format over the next 12 months. One year ago, 58% of surveyed brands indicated the same, suggesting a marked increase in companies wanting to remain with self-adhesive. In the survey, 17% of brand owners indicated they would be migrating some of their self-adhesive applications to shrink sleeves. One year ago that percentage was 26%.

As we continue to witness a decline in the percentage of brand owners indicating their applications will migrate from self-adhesive to shrink we have to ask ourselves: *Has shrink sleeve decoration peaked? What does the future hold for shrink technology as RADAR brand owner surveys indicate more allegiance to self-adhesive and a declining interest in shrink sleeve decoration?* The FINAT RADAR will continue to track the migration of labelling formats at the brand owner level so that association members have a clear view of the perceptions, and projections, of label buyers and the trends that will inevitably follow.

Another important trend the RADAR will continue to report on is the migration from conventional label printing to digital. In this year's RADAR Brand Owner Survey we asked participants to indicate if they are currently mandating their label suppliers have the capability to print digital labels. Interestingly, 21% of brand owners stated that they do not currently source digitally printed labels however *they still require their label suppliers to have digital presses on their production floors.*

As indicated in the RADAR, we are witnessing a critical turning point in brand owners' perceptions of digital label technology. Throughout the Eurozone an increasing percentage of brands are demanding that their label vendors have digital capabilities even if these brands are not currently sourcing digital labels. This is a trend that next year's *FINAT Digital Label Market Study* will examine even more closely, so that all FINAT members are informed and equipped with the necessary market analysis to make the most informed strategic decisions possible.

BRAND OWNER VIEWPOINT

The RADAR Brand Owner Survey

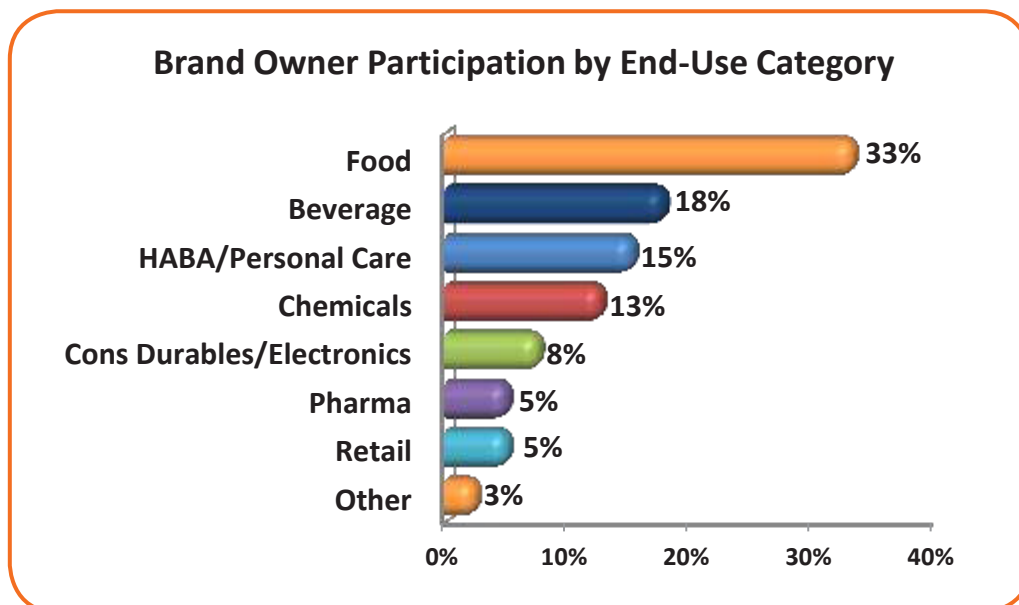
Label purchasing volume growth projections, label vendor loyalty, off-shore sourcing and the regions brand owners project they will be buying labels from. Migration from self-adhesive to other label formats, the RADAR Shrink Sleeve Index and the sourcing of digitally printed labels.

Once again, more than 70 brand owners and packaging buyers participated in the 2016 Brand Owner Survey for this edition of the RADAR. Survey participants either directly source labels, or influence the label procurement, design and/or package engineering process.

It is important to note that brand owners from every major European region participate in the brand owner surveys and follow up qualitative interviews. To ensure the RADAR indices reflect the true movements of the market, on average 65-75% of the same brand owners participate year after year. In this most recent survey, among first-time respondents were household chemical conglomerates in the Netherlands and Germany, wineries in Portugal, Spain and Italy, one of the largest dairy producers in Scandinavia, and UK-based retailer Marks and Spencer's entire label sourcing team.

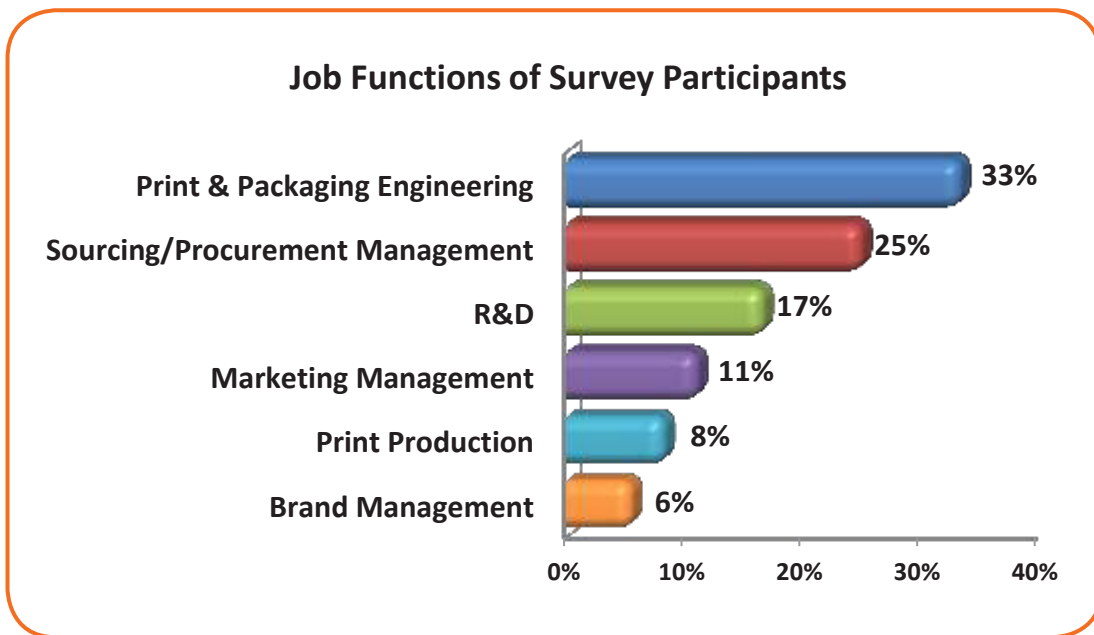
The central objective in surveying brand owners is that companies of every size – from multinational conglomerates to smaller, regional brands – participate and that every end-use category is represented.

The graph below indicates a breakdown of brand owner participation per end-use sector.



For this issue of the RADAR, 'other' includes the automotive and industrial labeling categories.

When asking participants to qualify themselves, it is important that we understand both the end-use categories they serve in addition to their specific job functions. The RADAR Brand Owner Survey is completed by personnel that are either directly involved in the sourcing and procurement of labels, or that have an influence over labeling design and/or label functionality. The chart shows participation by specific job function.



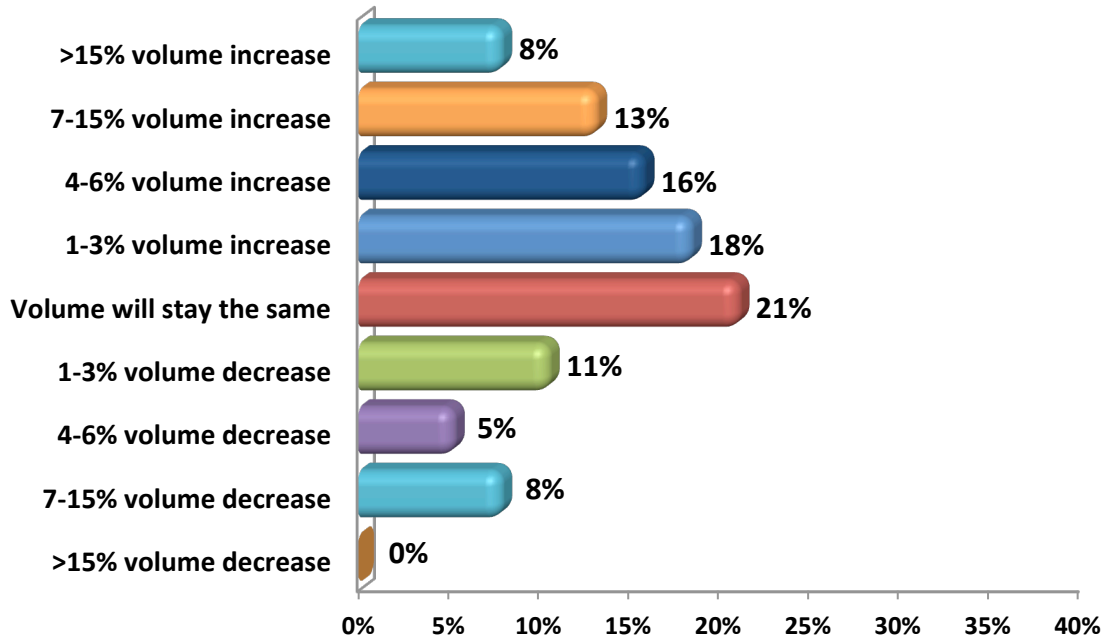
The largest group of survey participants includes managers within print and package engineering departments. These respondents are directly involved in analyzing labelling performance in existing production lines and the impact of label constructions on the application process. The package engineers that participate in the RADAR are also active members of label sourcing teams, constantly managing the development and implementation of continuous improvement programs for the label applications their companies purchase.

Will Brand Owners be buying more labels?

Projection Volumes for 2017

One of the first things the RADAR Brand Owner Survey asks participants to do is to indicate the rate at which their purchased label volumes will increase, or decrease, over the course of the next 12 months. Respondents are given a range of values to choose from (1-3%, 4-6%, etc.) and the chart on the following page indicates a breakdown of label volume growth predictions for 2017.

Label Volume Purchasing Projections for 2017



As stated previously, the majority of brands participating in the RADAR survey are the same companies that have participated in both the 2014 and 2015 surveys. This ensures that label sourcing projections are a true gauge of the directions of the general market.

For the 2017 projections, we see a slight shift in anticipated label purchasing volumes. In the most recent survey, 55% of participating brands indicated their label purchasing volumes would increase in 2017. However, one year ago 65% of surveyed brands indicated the same, suggesting a slight downturn in expansion for the coming year. The table below compares label volume sourcing projections for 2016 and 2017.

Label Volume Growth – All of Europe				
Average Label Procurement Volume Projected Increase for 2016*	Average Label Procurement Volume Projected Increase for 2017*	% Brand Owners Indicating Label Procurement will Increase	% Brand Owners Indicating Label Procurement will Stay the Same	% Brand Owners Indicating Label Procurement will Decrease
3.61%	3.43%	55%	21%	24%

*For both years label procurement volume shifts were projections. 2016 projections were from the RADAR 2015 Brand Owner Survey.

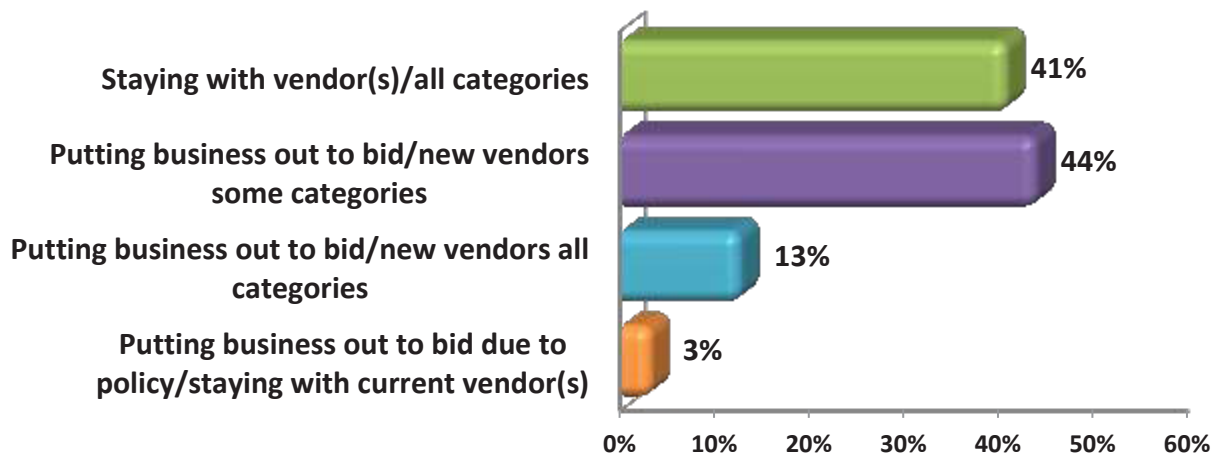
Brand Owners' Loyalty to their Label Vendors

Once again the FINAT RADAR researched and is reporting on loyalty levels between the buyers of labels and their label-manufacturing vendors. Survey participants were asked if they anticipated staying with their current label vendor(s), or if it was likely that they would put some, or all, of their label business out to bid within the next 12 months. Respondents were asked to select the answer that best applies from the following options:

- I foresee my company staying with its current label vendor(s) for all categories
- I foresee my company putting our label business out to bid and possibly securing a new label vendor for **some** categories
- I foresee my company putting our label business out to bid and possibly securing a new label vendor for **all** categories
- I foresee my company putting our label business out to bid due to company policy; however I predict we will stay with our current label vendor(s)

The graph below breaks down the responses of brand owners and packaging buyer respondents.

How Loyal will Brand Owners be to their Label Vendors in 2017?



**Note: Percentages do not add up to 100% due to rounding.*

SECTION 1

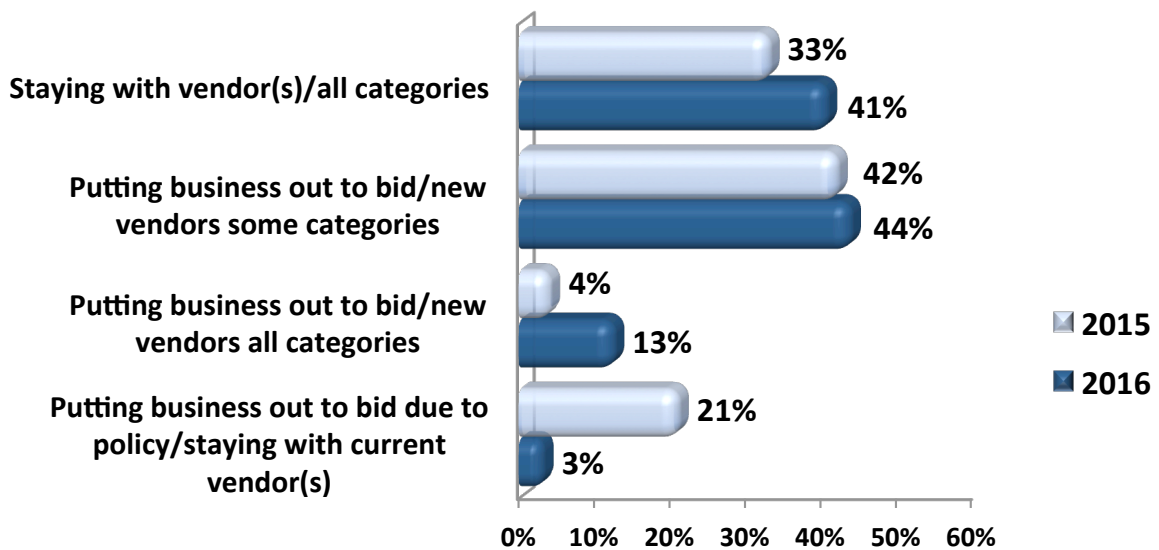
More than 40% of surveyed brands said they plan to stay with their existing label vendors for all label categories for the coming year. Comparing these results with the RADAR reports of 2014 and 2015, the results of this year's research indicates a spike in brand owner loyalty levels to their label suppliers. Thirteen percent of surveyed companies indicated that they plan to put their label business out to bid in 2017 and predict securing new label vendors for all applications.

Brand owners indicating they would be putting their label business out to bid in 2017 and seeking new label vendors for some, or all, categories serve the following end-use categories:

- Food (**highest rate** of respondents indicating they are seeking new label vendors)
- HABA/Personal Care (**second highest rate** of respondents indicating they are seeking new label vendors)
- Beverage (**third highest rate** of respondents indicating they are seeking new label vendors)

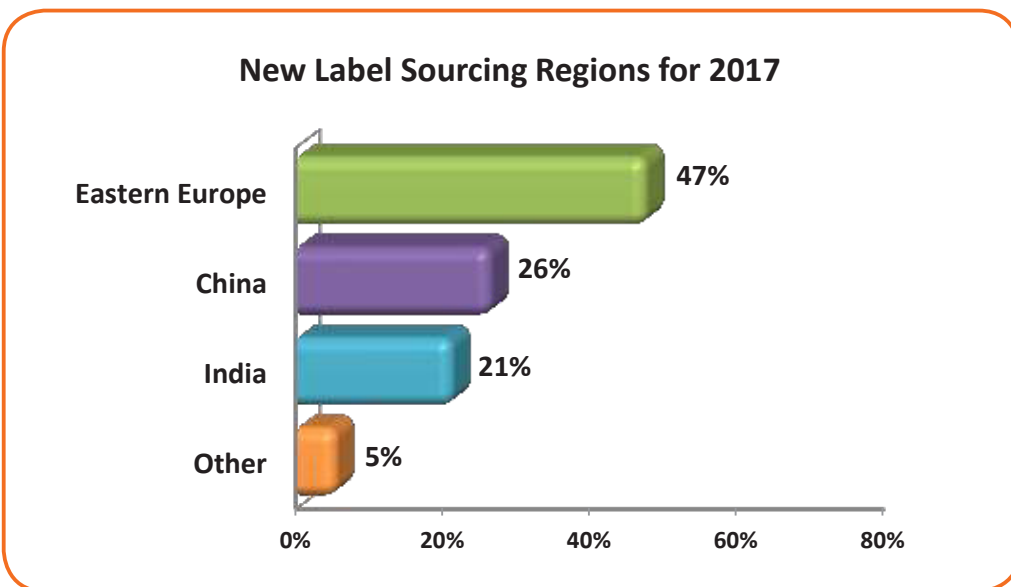
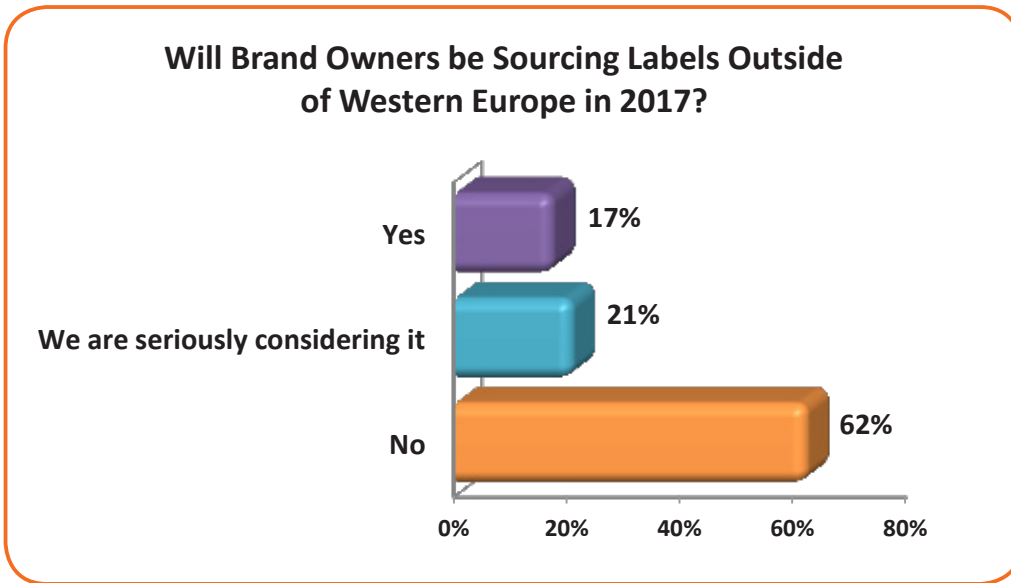
The graph below shows a comparison of brand owner loyalty levels in 2016 versus the results of last year's RADAR Brand Owner Survey.

Brand Owner Loyalty: 2015 vs. 2016



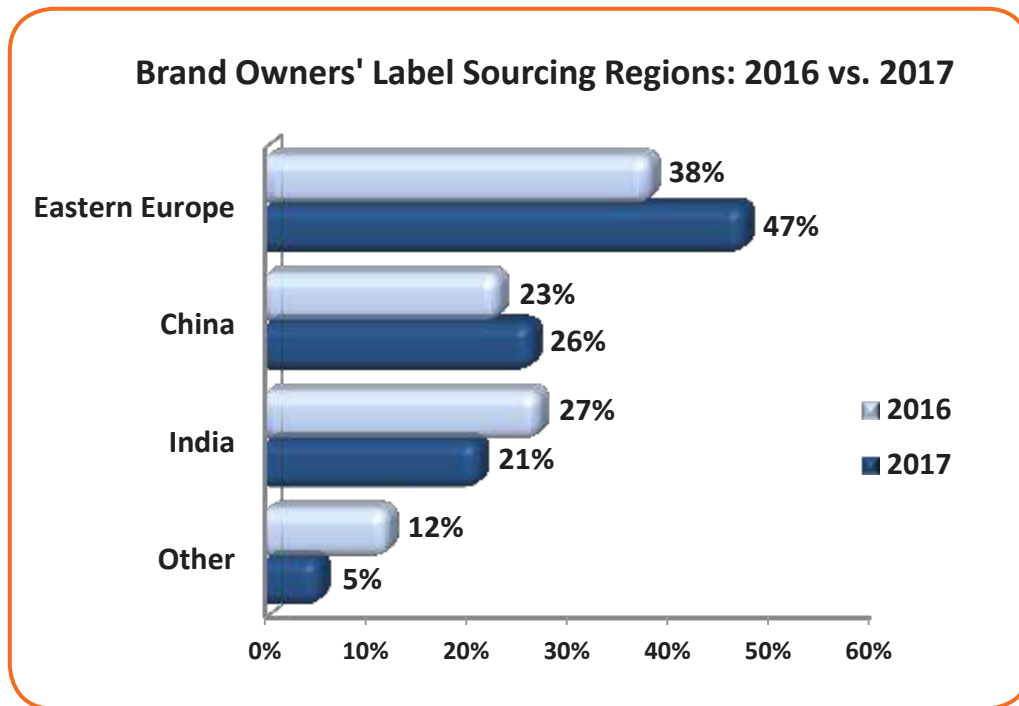
Off-Shore Label Sourcing Projections

Survey participants were asked if their companies are considering sourcing some, or all, of the labels they currently source within Western Europe from countries outside of Western Europe. The companies that indicated they were considering sourcing from regions outside of Western Europe were then asked to specify future sourcing regions. The charts below break down brand owners' responses.



Almost half of all respondents citing that their companies would be sourcing labels from outside of Western Europe in 2017 indicated that they were looking at label sourcing channels in Eastern Europe. Forty-seven percent of respondents indicated they were seeking channels in either China or India. 'Other' regions include Russia and Turkey (an interesting result given the uncertainty in these countries in the last year). This may indicate that brand owners are predicting more stability in these countries and that they will again become viable label sourcing regions.

Respondents were asked about their sourcing region preferences (outside of Western Europe) in the 2015 Brand Owner Survey as well and the graph below compares the results of the survey from Q4 2015 with the results of the most recent survey.



In comparing the results of the most recent brand owner survey with last year's research, the sharpest increase in sourcing projections is in Eastern Europe. Nearly half of the brand owners indicating they would be sourcing labels from outside of Western Europe in 2017 indicated they would be sourcing their labels from Eastern Europe.

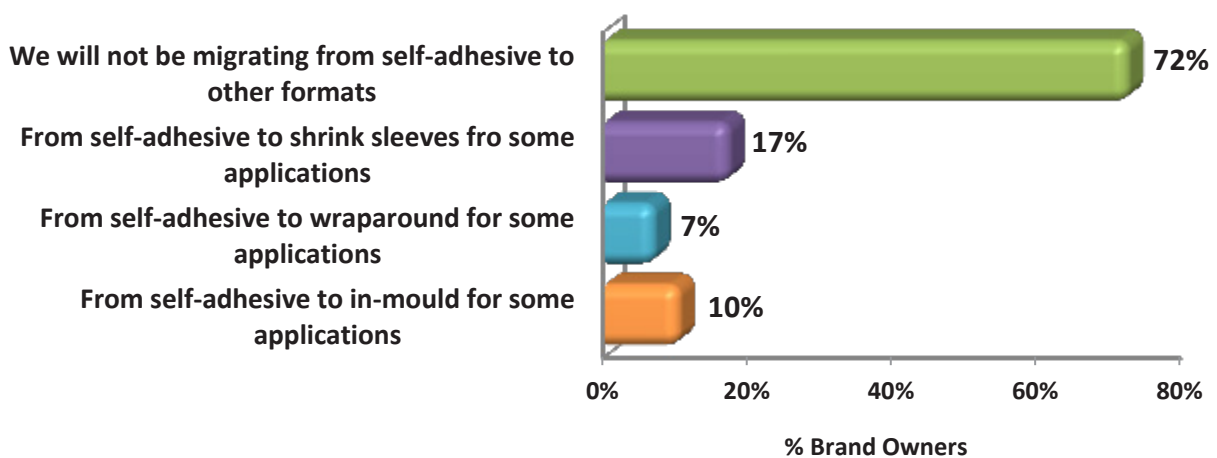
Brand owner interest in China as a potential label sourcing region continues to expand at a slow pace. When asked about China's potential as a label supply region, brand owners are wary and less optimistic than they were a decade ago. The Economist Intelligence Unit reports that since 2001, hourly manufacturing wages in China have risen on average 12% per year. Higher label costs coupled with the logistics requirement that brands have to buy 3-4 months of inventory when buying labels from China and India have meant slow growth in brand owners' potential label sourcing interest from these global regions.

Year-over-year interest in sourcing labels from Eastern Europe has shown a more significant increase. As these lower-wage markets continue to benefit from a younger, well educated workforce, lower oil prices and major infrastructure investments throughout the region, brand owners are increasingly looking to countries like Hungary, the Czech Republic, Poland and Slovakia as viable label sourcing channels.

Migration away from Self-Adhesive to other Labelling Formats

The FINAT RADAR has been closely tracking the migration away from self-adhesive labelling formats to other decoration technologies including shrink sleeves, in-mould, and wraparound/non-shrink labels. The Brand Owner Survey asked participants if their company would migrate a portion of their self-adhesive business to another labelling format within the coming year and if so, to indicate what that projected format would be. The graph below breaks down participants' responses.

Migration from Self-Adhesive to Other Formats: 2017



***Note: Respondents were allowed to choose more than one category.*

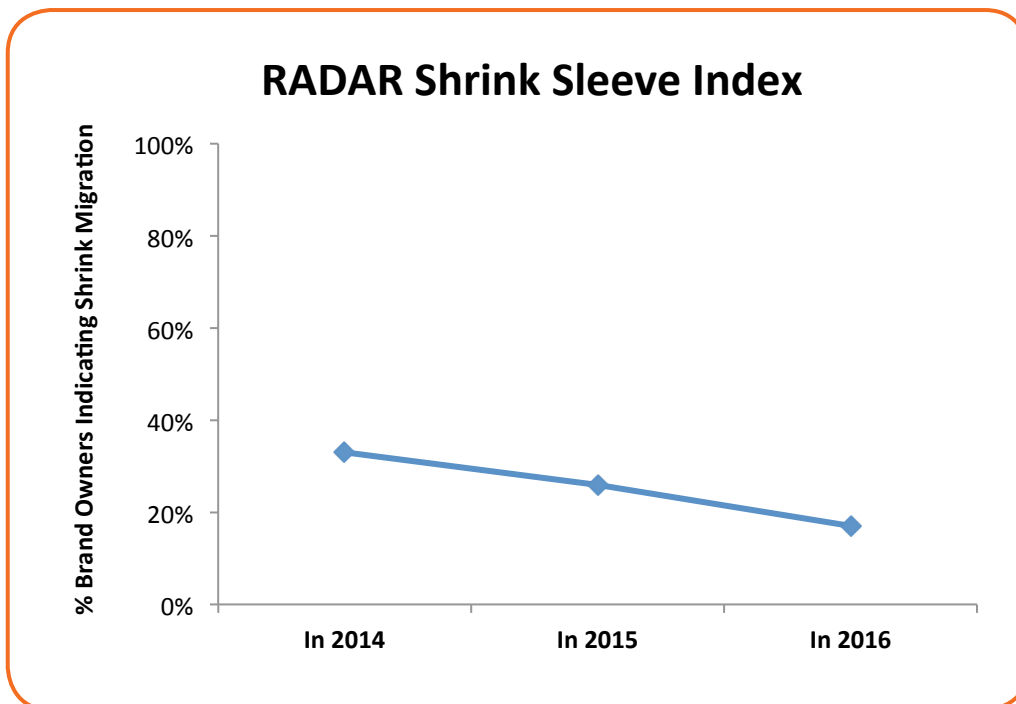
More than 70% of all surveyed companies indicated that they will not be migrating away from self-adhesive to other decoration methods for any of their products in 2017. Seventeen percent of respondents indicated that they would be migrating from self-adhesive labelling to shrink sleeves for some applications while 10% of respondents indicated they would be migrating to in-mould. The brand owners indicating migration from self-adhesive to shrink serve the following end-use categories:

- Food (highest rate of self-adhesive to shrink migration)
- Beverage (second highest rate of self-adhesive to shrink migration)
- HABA/personal care and household chemicals (third highest rate of self-adhesive to shrink migration)

In past issues of the RADAR, higher numbers of HABA/personal care brands indicated they were going to move some of their applications away from self-adhesive to shrink sleeve decoration. However, there was a noticeable drop in these companies indicating the same for 2017. Higher numbers of personal care brands indicated they were staying with self-adhesive labelling decoration in 2017 and two brands specifically indicated that they would be migrating some of their business from self-adhesive to direct thermal decoration.

Is Brand Owner Interest in Shrink Sleeves Decoration Declining?

The FINAT RADAR Brand Owner Survey has been tracking labelling decoration migrations for the past three years and each year brands are asked if they project their self-adhesive labels will move to different decoration technologies. We witnessed a decline in shrink sleeve migration interest in 2015 and we see an even more marked decline this year compared to last year's survey results. The graph below shows the percentage of brand owners year over year indicating that some of their applications would move from self-adhesive to shrink in the coming year.

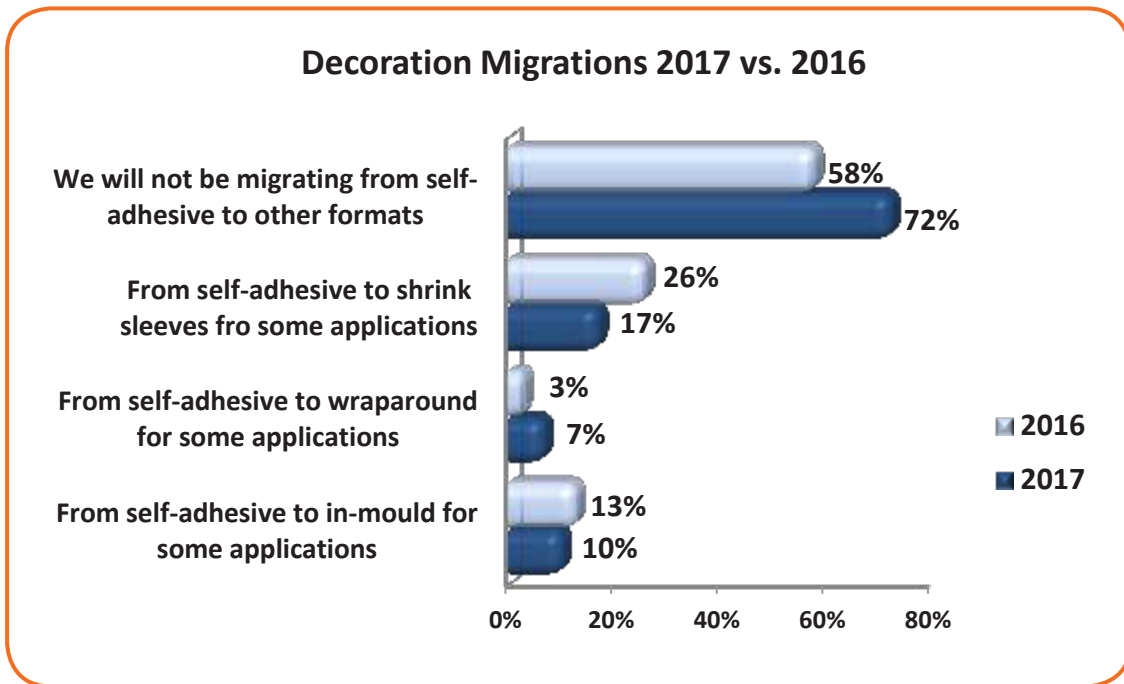


It's important to note that 65-75% of RADAR brand owner survey respondents have been the same companies year over year. However, the decrease in projected shrink sleeve migrations may indicate that brands already using shrink sleeves have reached a critical mass and are not planning on migrating any of their remaining self-adhesive applications over to shrink in the foreseeable future.

For brands participating for the first time in the RADAR survey, the decline in interest in shrink sleeves indicates a stronger allegiance to self-adhesive and not wanting to make any decoration changes in the coming year. A synopsis can be reached that the most recent results of the RADAR indicate the European market for shrink sleeves is reaching maturity and that market stabilization is evident.

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The graph below shows 2017 decoration projections compared to 2016.



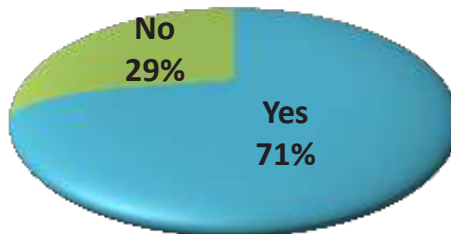
This graph shows the sharp increase in brand owners remaining with self-adhesive labelling decoration over the course of the next year. It additionally shows the decrease in self-adhesive to shrink migration. Interestingly, there was a 4% increase in the number of brand owners citing their self-adhesive applications would migrate to wraparound (non-shrink) in the coming year, while in-mould migration fell 3%.

Brand Owners and the Procurement of Digitally Printed Labels

A market force the RADAR examines closely every year is how much brand owners are actively mandating the supply of digitally printed labels from their printed packaging vendors. While SKU proliferation, decreasing run sizes and the ability to personalize continue to drive digital press adoption rates, some brands are still hesitant about moving some of their applications to digital due to color matching uncertainty and the inevitable changes in supply logistics that sourcing digitally printed smaller job sizes brings.

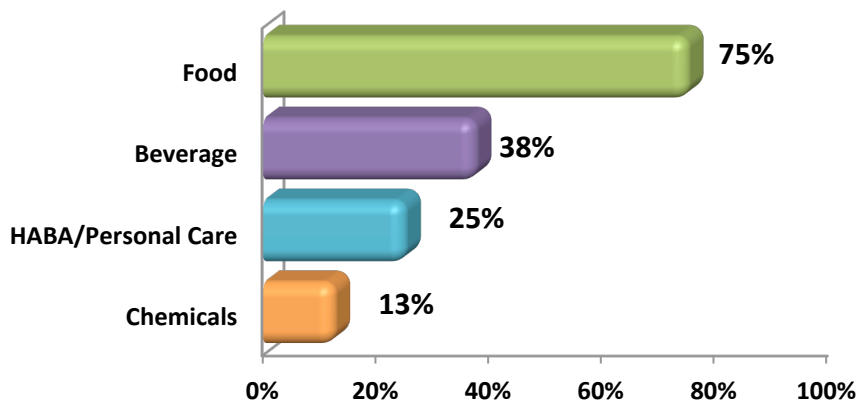
The FINAT RADAR asked surveyed companies if they currently source digitally printed labels and the graph below shows brand owners' responses.

Are Surveyed Brand Owners Sourcing Digitally Printed Labels?



The majority of surveyed companies are currently sourcing digitally printed labels. In analyzing the data further, we looked for possible tie-ins with specific end-use categories. In other words, were the non-digital brand owners primarily grouped in specific end-use sectors? The graph below shows a breakdown by category of surveyed companies that do **NOT** purchase digitally printed labels. *(Note, the graph below does not add up to 100% due to some companies serving multiple end-use categories.)*

Companies NOT Sourcing Digital Labels by End-Use Category



Unsurprisingly, the majority of brands that do not currently source digitally printed labels serve the food and beverage industries. Larger run sizes still dominate food and beverage and while digital growth rates are strong in these categories, flexography's domination is predicted to continue in the years to come.

The most surprising factor in the digital analysis for this edition of the RADAR is the number of HABA/personal care companies that are still not sourcing digitally printed labels. In a market where quality standards remain very high and run sizes continue to decrease, digital is well positioned to capture flexographic marketshare in the personal care sector however a number of companies are hesitate to make the jump. A print technologist at a multinational personal care and cosmetics company headquartered in Switzerland with annual revenues in excess of €1 billion stated the following:

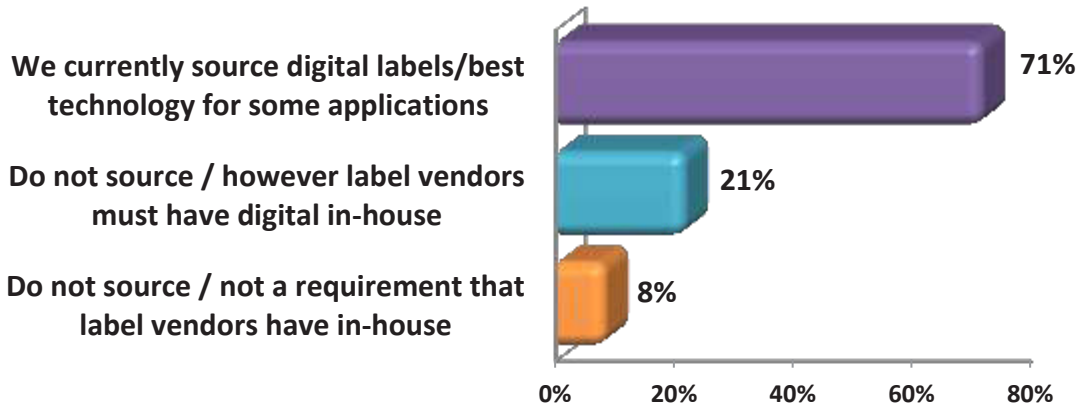
"We still do not source digital labels, even though we realize some of our run sizes might be well suited to digital print technology. However, something we find with our strategic label suppliers is that they have a very hard time explaining the precise cut off point where the curve crosses over and digital becomes more cost effective versus flexo.

Some of our run sizes are down to 15,000-20,000 units and we realize this might make sense digitally. However, with digital you have to manage your materials differently and we don't want to have a color matching learning curve if we decide to switch print technologies for some of our products. Having our labels printed digitally would mean we have to manage something at a component level and if you decide to do that, you need the time and the resources. You have to balance the cost of investing and managing that against what you would actually save."

**–Print Technologist,
Swiss Personal Care/Cosmetics Company**

While a number of consumer packaged goods companies are not currently sourcing digitally printed labels, how important is it that these companies' label vendors still have the ability to do so? Are brand owners making the ability to print digitally a vendor requirement, even if they are not actively sourcing digitally printed labels? The graph on the following page shows brand owners' responses to this central question.

Are Brand Owners Making the Ability to Print Digital Labels a Vendor Requirement?



More than 20% of surveyed brand owners stated that even though they are not sourcing digitally printed labels currently, they still require their label vendors to have the technology in-house. We are witnessing a critical turning point in brand owners' perceptions of digital label technology. In both Europe and North America, an increasing percentage of brands are demanding their label vendors have digital printing capabilities even if these brands are not currently sourcing digital labels.

As indicated earlier, surveyed companies were asked to project what their overall label procurement growth would be in the next 12 months. The companies that currently source digital labels were also asked to project what their company's overall digital label procurement growth would be. The table below compares and contrasts averages for both these metrics.

Label Volume Growth 2017: Total Label Procurement vs. Digital Labels	
Average Label Procurement Volume Projected Increase for 2017*: <u>All</u> Label Applications	Average Label Procurement Volume Projected Increase for 2017*: <u>Digital</u> Label Applications
3.43%	5.50%

According to surveyed brand owners, average label procurement volume growth for digitally printed labels is projected to outpace general market growth by more than 2% in 2017. The FINAT RADAR will continue to track label growth so that projected growth rates for each technology can be compared and contrasted moving forward.

SECTION 1

The final survey question in this section discusses what brand owners consider the most important innovation offerings their label vendors can offer. This is the exact same question we asked in the June RADAR, however at that time we posed the question to converters and in this most recent survey the question was posed solely to brand owners.

Brand owners and packaging buyers increasingly demand that their label vendors deliver more innovation. 'Innovation' is a broad concept and in asking this question we sought to narrow in on exactly what label buyers meant by the word 'innovation' and ways label vendors could better serve their companies. The table below ranks a series of criteria from most to least important, and shows how both converters and brand owners answered this question when given the same set of criteria.

Converter vs. Brand Owner Perspective: Ranked list of Most Significant Ways Label Converters can Deliver 'Innovation' to their Customers			
Converter Perspective		Brand Owner Perspective	
Offering	Rank	Offering	Rank
Offering cost savings solutions such as thinner material constructions	#1 (most important)	Offering cost savings solutions such as thinner material constructions	#1 (most important)
Offering digital printing and more efficient run size/delivery solutions	#2	Offering digital printing and more efficient run size/delivery solutions	#2
Offering a wider variety of application options such as extended text/booklet labels and shrink sleeves	#3	Offering a wider variety of application options such as extended text/booklet labels and shrink sleeves	#3
Offering internal artwork design services	#4	Offering next generation technology solutions like RFID and smart labels	#4
Offering next generation technology solutions like RFID and smart labels	#5 (least important)	Offering internal artwork design services	#5 (least important)

Source: LPC, Inc. FINAT RADAR
**Data taken from FINAT converters and brand owners in every major European region*

***Differences in the way each group ranked the criteria are indicated in red text.*

SECTION 1

Our research shows that FINAT converters know their customers well. In this exercise, converters' predictions were very close to what brand owners' priorities actually were. Unsurprisingly, cost savings solutions were ranked the highest both by converters and brand owners. This demonstrates that extensive material construction knowledge can be a powerful tool for label converters wanting to differentiate themselves in the marketplace. It also points to the fact that becoming material light-weighting (also referred to as down-gauging) experts is a critical step for label converters as brand owners increasingly want their label suppliers to deliver cutting-edge material constructions.

The research results also indicate the importance brand owners place on a converter's ability to print labels digitally. As we discussed previously, this is growing more and more important as 21% of brand owners indicated that even though they do not currently source digitally printed labels, it is a requirement that their label converters have digital printing capabilities.

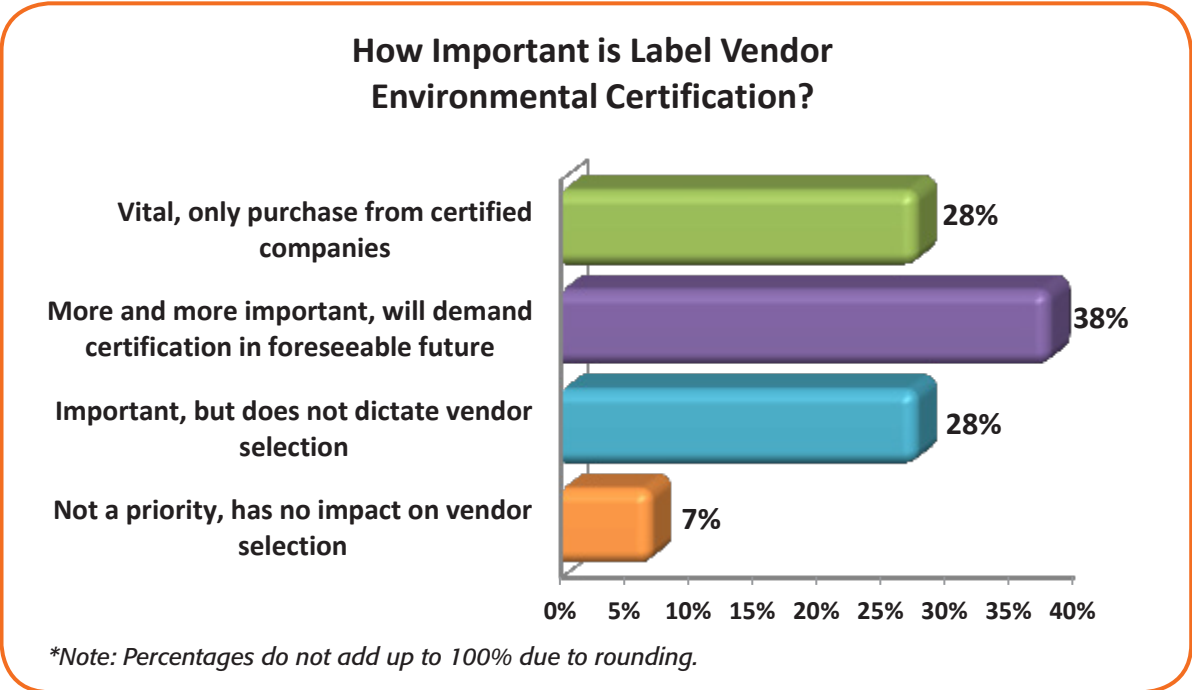
This exercise also stresses the growing importance of converters expanding their application offerings and production expertise to include applications such as extended text, booklet and re-sealable labels. Multi-ply label applications are a growth market and brand owners across the food, beverage, personal care, household chemicals and pharmaceutical sectors cited these applications as expanding sectors within their own companies.

BRAND OWNER'S VIEWPOINT

Sustainability Awareness and Requirements

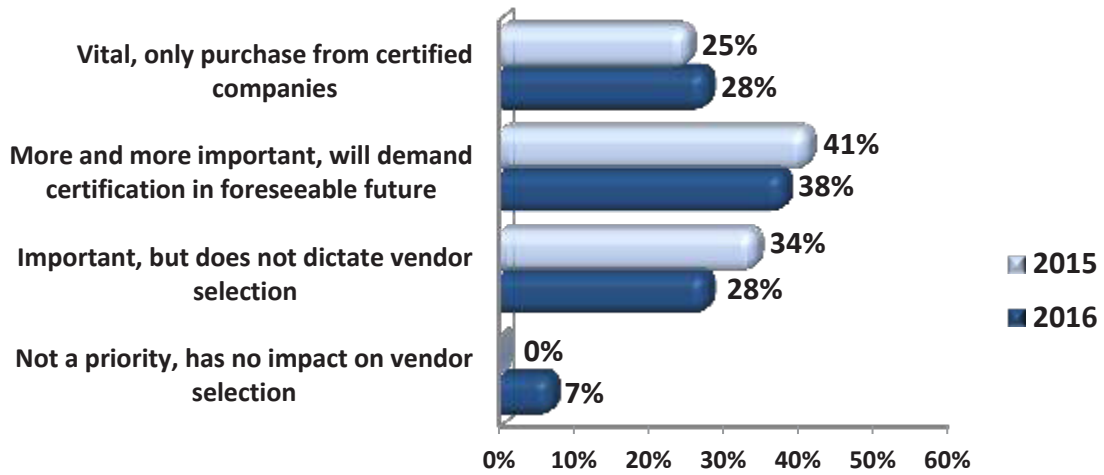
The enforcement of environmental certification onto label suppliers, the RADAR Environmental Certification Index and brand owners' perceptions and current activities in recycling label liner waste.

In this section of the FINAT RADAR we focus on some current sustainability practices and label vendor demands at the brand owner level. While this is a research area FINAT is continually exploring and dedicating resources to, we want to offer a current perspective in this edition of the RADAR, highlighting real-time perspectives and actions of the companies that dictate and drive standards throughout the supply chain. The graph below shows the percentage of brand owners that require their label vendors to have environmental certification, and the percentage of companies that state it will become a requirement in the foreseeable future.



The importance that brand owners and packaging buyers place on their label suppliers achieving environmental certification is something that the RADAR has been gauging for three years. Last year's RADAR Brand Owner Survey also asked this question and the chart on the following page compares 2015 feedback with the results of the most recent survey. Once again, it's important to note that the majority of the brand owner companies participating in RADAR reports participated in both surveys hence the comparison offers tangible data as to the true shift in the market concerning this important issue.

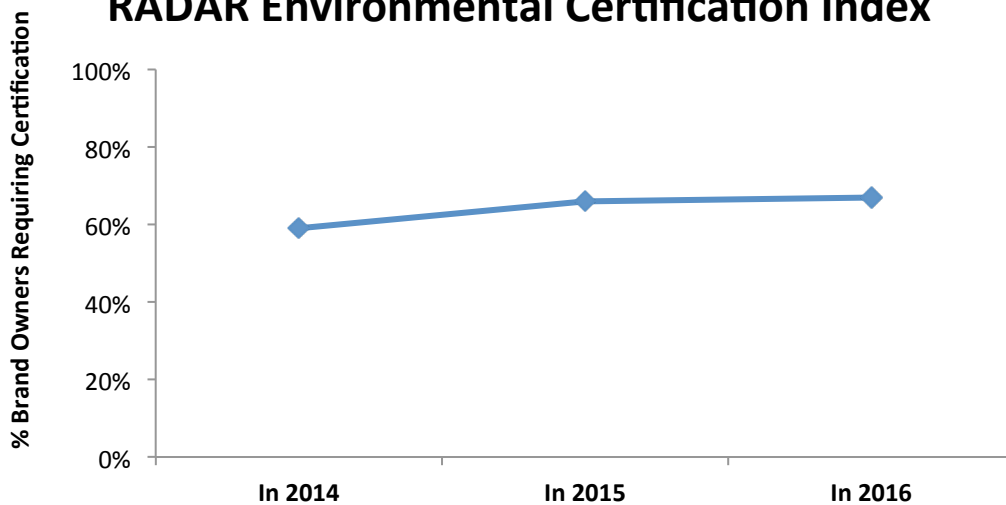
How Important is Label Vendor Environmental Certification? 2015 vs. 2016



We see little change in brand owner certification requirements over the past two years. While 3% more brand owners indicated in the most recent RADAR survey that some type of environmental certification is a requirement for their label vendors, only 3% fewer companies indicated that it will become a requirement in the foreseeable future.

Brand owner certifications demands remain high. Both in 2015 and in 2016, 66% of respondents stated that their companies either already demand all of their label vendors require some type of certification, or that they will require it in the foreseeable future. However, we are seeing little or no increase in these percentages year over year. The chart below indexes brand owner certification demands year over year for the past three years.

RADAR Environmental Certification Index

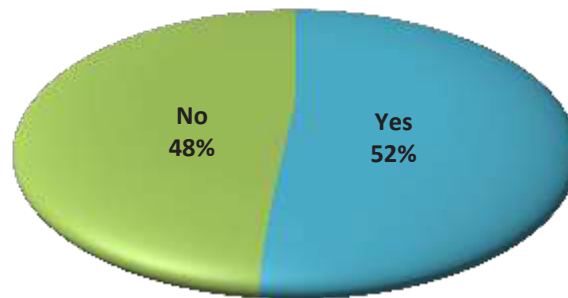


Brand Owners and Liner Recycling

The FINAT Brand Owner Survey asked companies three questions about their current recycling practices. In an industry where half of all self-adhesive throughput is waste (and that does not even include additional matrix rewind waste) the recycling of liner waste is an issue of growing importance among brand owner companies, as brands fine tune their sustainability strategies for the future.

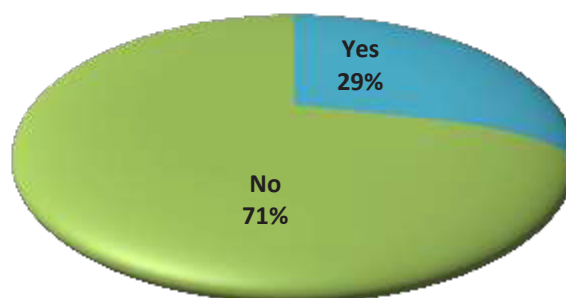
The first question in this section of the RADAR survey simply asked participating brand owners if they are familiar with the current options available for recycling their liner waste. The chart below breaks down companies' responses.

Do Brand Owners know about Available Options for Recycling Liner?



Brand owner respondents were nearly evenly divided. Almost 50% of participating companies say they are not familiar with available recycling options while just over half of respondents indicate that they are. The chart below shows the percentage of respondents indicating that they are currently recycling a portion of their liner waste.

Are Surveyed Companies Currently Recycling a Portion of Liner Waste?

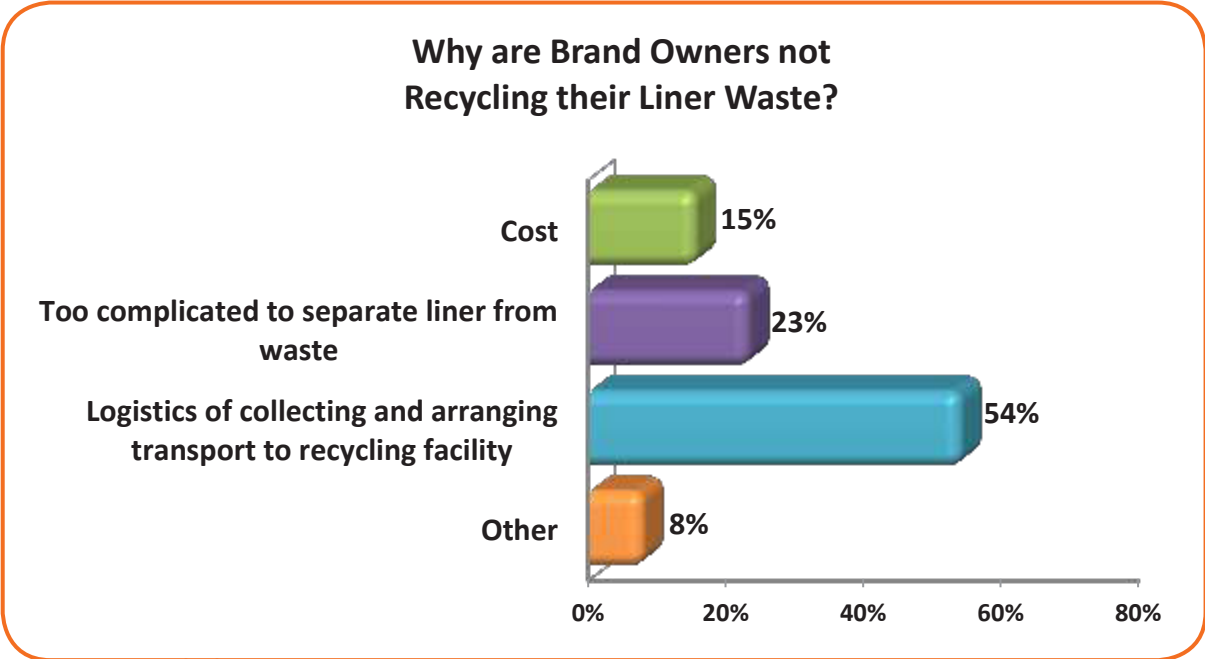


SECTION 2

Twenty-nine percent of companies responded that they are recycling a portion of their liner waste. It is very important to note here that the vast majority of companies claiming they are recycling liner waste are multinational, larger brands. *Nearly all of the smaller, regional brands indicated that they are not yet recycling their liner waste.*

It is also important to note that, on average, participants in the RADAR Brand Owner Survey are quite technical when it comes to the printing and application of self-adhesive labels. Whether a participant is a packaging engineer, a sourcing manager or a health and safety manager; every respondent is vetted to ensure that they have a level of technical knowledge that enables them to sufficiently fill out all survey questions and participate in qualitative interviews.

The final question in the survey asked the companies that are not currently recycling waste their reasons for not doing so. The chart below breaks down participants' responses.



More than half of brand owners cite that the reason they are not currently recycling liner is due to the logistics of collecting and arranging transport to a recycling facility. Even though major self-adhesive material suppliers and other companies are expanding their recovery programs and infrastructure reach, the majority of respondents not currently recycling liner cited that collecting the spent liner and transport logistics remain major barriers in implementing recycling programs.

Companies that indicated 'other' for this question listed the following reasons:

- No recycling options available in region
- Moving applications to linerless and/or applications have already moved to linerless
- Investigating options

Key Findings from Surveying Brand Owners and Packaging Buyers

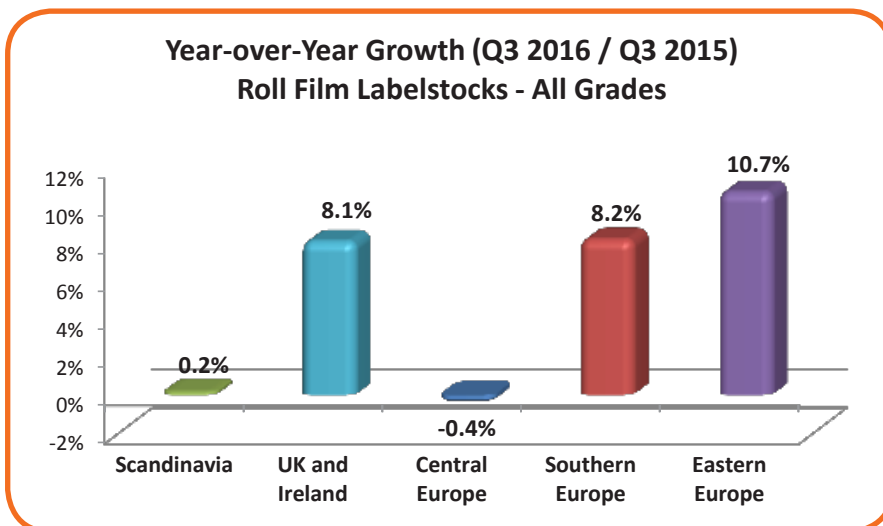
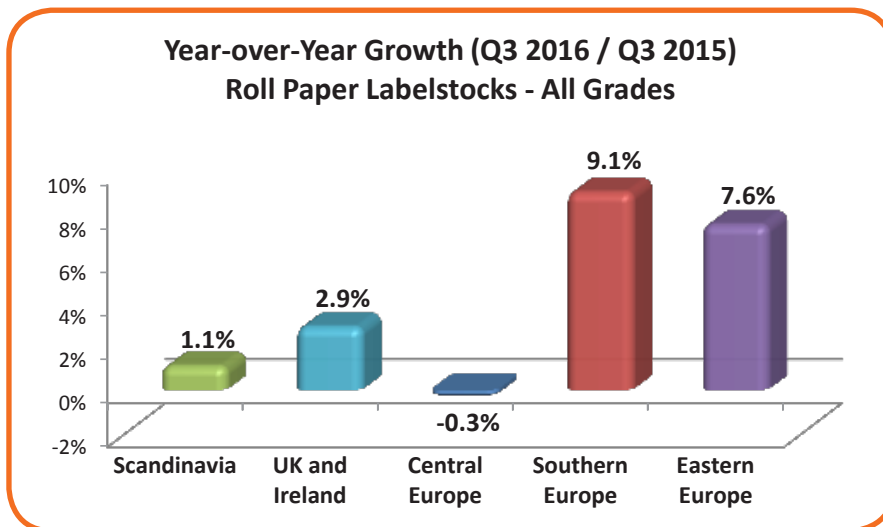
The table below offers a synopsis of the key findings extracted from surveying and interviewing brand owners and packaging buyers in every major European region.

KEY FINDINGS	
<p>3.43%</p> <p><i>Procurement increase in 2017.</i></p>	<p>Average label procurement volume growth is expected to be 3.43% for surveyed brand owners and packaging buyers in 2017, a slight decrease compared to 2016.</p>
<p>41%</p> <p><i>Are staying with existing label suppliers in 2017.</i></p>	<p>Brand owner and packaging buyer companies were asked to indicate if they would stay with their current label vendors in 2017, or if they would seek new suppliers. 41% of companies cited that they would stay with existing label vendors in 2017.</p>
<p>38%</p> <p><i>Are sourcing, or are seriously considering sourcing, from outside of Western Europe in 2017.</i></p>	<p>Brand owners were asked about their projections for sourcing labels outside of Western Europe. For those companies that indicated they already are, or are seriously considering, sourcing from outside; 47% indicated projected supply from Eastern Europe, 26% from China and 21% from India.</p>
<p>72%</p> <p><i>Say they will <u>not</u> be migrating away from self-adhesive decoration.</i></p>	<p>Percentage of brand owners and packaging buyers that say they will not be migrating from self-adhesive labelling to another decoration technology in 2017. 17% say they will migrate to shrink; 7% say they will migrate to wraparound (non-shrink) and 10% say they will migrate to in-mould.</p>
<p>21%</p> <p><i>Do not source digital labels however still demand their label vendors have digital capabilities.</i></p>	<p>Percentage of brand owners that say they do not currently source digitally printed labels, however still demand that their label vendors have digital presses on their production floors.</p>
<p>5.5%</p> <p><i>Digital label procurement increase in 2017.</i></p>	<p>Brand owners that currently source digital labels were asked to project what their company's overall <u>digital</u> label procurement growth would be over the next 12 months.</p>
<p>Source: LPC, Inc. FINAT RADAR</p>	

LABELSTOCK GROWTH PER EUROPEAN REGION

Year-over-Year Growth Rates for Paper and Film Roll Labelstocks (Q3 2016 compared to Q3 2015)

In each issue of the FINAT RADAR we report on year-over-year material growth by comparing the volume sales of different types of roll labelstocks for one quarter, with the same quarter the previous year. This data is derived from aggregated input from the quarterly FINAT Labelstock Statistics Report. Europe's largest and most prominent labelstocks manufacturers participate in the quarterly survey, ensuring that the analysis is as true-to-market and comprehensive as possible. Average year-over-year growth (Q3 2016 compared to Q3 2015) for European paper labelstocks was 5.2%; average year-over-year growth for European film labelstocks sales was 5.6%. The graphs below break down year-over-year growth for each labelstock type per European region.



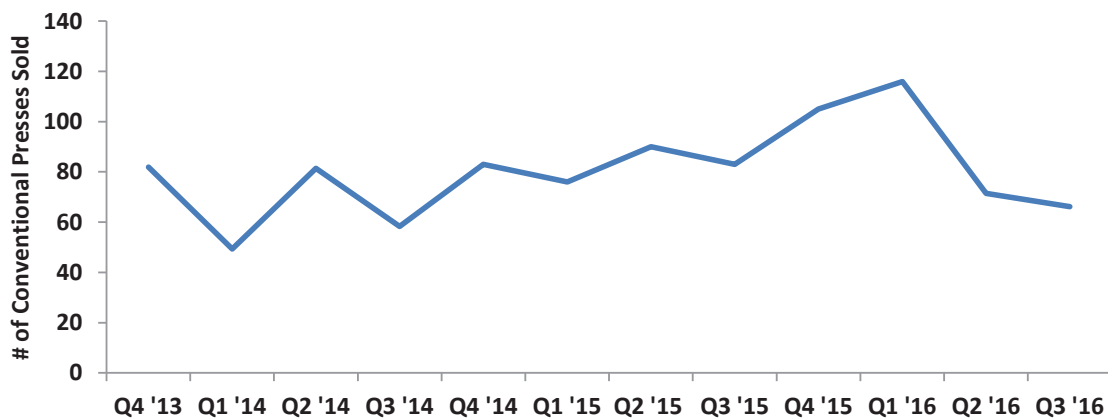
EUROPEAN CONVENTIONAL PRESS SALES

Quarter-over-Quarter Volume Sales for Conventional Presses: Q2 & Q3 2016

Each issue of the FINAT RADAR has a section that presents press sales data to allow for the development of an index that illustrates quarterly fluctuations in total press sales for Europe. The major press manufacturers participate in this index, representing more than an estimated 90% of the total market for conventional press sales and installations in the region.

Important reader note: Like with any evolving market index that requires participation of multiple manufacturers, there has been a development curve in formulating the RADAR Conventional Press Index. This particular index represents the first time European quantitative data has been collected from press manufacturers for an industry report, and creating a structure that best represents true market numbers takes commitment and time. We would like to thank all of FINAT's conventional press supplier members for their ongoing cooperation and participation. The graph below shows conventional press sales in Europe from the fourth quarter of 2013 to the third quarter of 2016.

**Conventional Press Sales in Europe:
Q4 2013 - Q3 2016**



This graph gives us a clear indication that press sales peaked in the first quarter of 2016. With the steady recovery of the Eurozone in 2015 and the first quarter of 2016, converters were confident that the markets would continue to stabilize and purchased capacity to meet regional growth. The end of 2016 paints a different picture. We can assume that the spike in press sales the first quarter of this year created a market situation of excess capacity and the market has stabilized, negating the need for a number of companies to make another conventional press investment.

SECTION 4

In addition to new press sales, conventional press manufacturers are also asked to indicate the number of machine sales that fall within four specified cost ranges. The graph below breaks down press sales for the third and fourth quarters of 2016 by price point range.

**Values of Conventional Presses Sold
in EU Q2 and Q3 2016**

