



# REPORT & ANALYSIS: THE EUROPEAN NARROW WEB MARKET

Dear FINAT Member,

It is my pleasure to present you already the fifth edition of the FINAT RADAR, our association's 6-monthly market monitor prepared by LPC.

Like last year, the spring edition of the report focuses on the perspective of the label converter. The results are based on an extensive online survey carried out among FINAT converter members in Europe and also shared with members of the European national associations. I am pleased to have learned that this edition of the FINAT RADAR achieved the highest response rate so far.

This report also is the most elaborate one so far in terms of topics addressed and number of pages and charts. It holds a treasure of indispensable first-hand market information.

A preview of the report's findings was already presented by our Managing Director Jules Lejeune at the second edition of our European Label Forum held recently in Amsterdam. At this meeting we addressed the topics of 'value creation' (extracting more value from your current business) and 'collaborative innovation' (for future growth).

These are two sides of the same coin that are crucial to the future success of our industry, and in preparation for that meeting a number of questions on both topics were included in this year's spring converter survey.

I trust that in reading the report, every converter will be able to pick up on the points described and to benchmark their own position against the industry averages presented.

It has been a busy first half of 2016, and with the recent outcome of the British EU referendum, exciting times are ahead of us. The report presented at the European Label Forum and the outcomes of the current FINAT RADAR indicate that our industry's fundamentals are healthy and that the European label industry is well positioned to face the challenges.

In doing that, knowledge is key to our success.

I wish you all a good summer break!

Thomas Hagmaier  
FINAT President

## Scope of the Report ..... 2

### SECTION 1: FINAT Converter Trends and Analysis

Survey Participation by Region .....	3
Survey Respondent Company Size and Job Function .....	4
Year-Over-Year Converter Sales Growth .....	5
Year-Over-Year Converter Profitability Trends .....	5
Converter Growth Index by Region 2013-2015 ....	7
Converter Growth per End-Use Category .....	8
Converter Growth Index by End-Use Category ....	9, 10
Conventional and Digital Run Sizes per End-Use Sector.....	11
Run Size Contraction Rates per End-Use Vertical .....	12
Capital Equipment Procurement Projections .....	13
Digital Press Procurement Projections by Technology .....	15
Converter Interest in Converting Pouches.....	17
Converter Interest in Converting Sleeves .....	18
Converter Interest in Converting Flexible Packaging .....	19
Converter Interest in Converting In-Mould .....	20
Converter Interest in Converting Folding Cartons.....	21

### SECTION 2: Converter Benchmarking Metrics

Converters' Average Running Waste .....	22
Average Running Waste per Region.....	23
Labour and Labelstock Cost Trending .....	24
Converters' Approach to Pricing .....	25
Product Commoditization Pressures .....	26
Delivering Innovation/Ranking .....	27
Key Findings from Converter Survey Data .....	28

### SECTION 3: Labelstock Growth

Growth Rates for Paper and Film Roll Labelstocks (Q1 2016/Q1 2015) .....	29
--------------------------------------------------------------------------	----

### SECTION 4: Conventional Press Index

Volume Sales for Conventional Presses: Q4 2013 - Q1 2016 .....	30
----------------------------------------------------------------	----

Researched and compiled by LPC, Inc.



www.lpcprint.com

## SCOPE OF THE REPORT

In 2016 we will be following the same structure for the FINAT RADAR that was put in place last year. Once again, each edition of the report will have a focus on either the European label converter or the European brand owner/packaging buyer. This Spring edition of the report is the converter issue and reveals the results from an in-depth survey completed by more than 80 FINAT converter members - the highest converter response rate received to date.

This is the third year we are surveying FINAT converter members, asking them about their companies' growth rates and different label production metrics. This allows us to present some of the data in an indexed format so that readers can see the trending lines of general converter growth per region, in addition to growth rates per end-use vertical (food, beverage, pharmaceuticals, household chemicals, etc.).

As you will see reported in the pages of this edition of the RADAR, 2015 was a strong year for label converters in every European region with the exception of Scandinavia. Year-over-year sales increased an average of 8.39% for the total respondent group and profits were up an average of 7.15%. Once again, converters in Eastern Europe had highest average year-over-year sales increases at 10.5% and the only region to report a decline in sales was Scandinavia at -1.3%. **Highest growth rates were reported in the pharmaceutical, health and beauty and food sectors while office products, transportation/logistics and retail lagged behind the other end-use verticals with lowest reported year-over-year growth rates.**

Average run size/job size lengths declined across end-use verticals for both conventional and digital printing. Compared to reported run sizes in 2014, **conventional run sizes in 2015 were down an overall average of 22%**. One important metric the most recent RADAR Converter Survey analyzed was the current 'breakeven' run size for conventional label printing. The 'breakeven' reference means the length that a run size/job size needs to be to actually be profitable on a conventional printing press. Anything less than this breakeven run size would be produced at a loss. **Currently, the average breakeven run size/run length for FINAT converters is 1,500 linear meters.**

What does the rest of 2016 hold for FINAT label converters? Will companies be able to sustain the strong growth 2015 delivered? Economists cite that the rate of growth in Western European Industrial Production indices report a softening in the marketplace in reaction to ongoing Industrial Production declines occurring in the United States. The forecast for Eastern Europe however paints a different picture as economists predict that Eastern Europe Industrial Production will increase at an accelerated pace through much of this year.

## FINAT CONVERTER VIEWPOINT

### The 2016 FINAT Converter Survey

The information and data in this section of the FINAT RADAR has been compiled using the annual RADAR Converter Survey as a foundation. The survey is an extensive questionnaire that asks FINAT converter members a series of production questions in addition to things like annual sales and profit rates, labour and material costs trends, if converters anticipate purchasing printing presses or other capital equipment before the end of this year, and which end-use categories (food labels, beverage labels, consumer durables labels, etc.) are delivering the highest growth.

This year's RADAR Converter Survey also asked some new questions. The survey explored the areas of label commoditization pressures, the ways converters are delivering innovation to their customers, and label converters' approach to pricing. These are big questions and by asking converters about these issues, we are able to offer a glimpse inside the converter mindset as well as inside the four walls of their businesses.

We would like to thank all of the FINAT members who filled out the RADAR Converter Survey. This year's survey had more converter participation than ever before. The high rate of participation reinforces the value companies are receiving from having this type of information as an ongoing resource.

The graph below indicates a geographic breakdown for all RADAR Converter Survey participants.

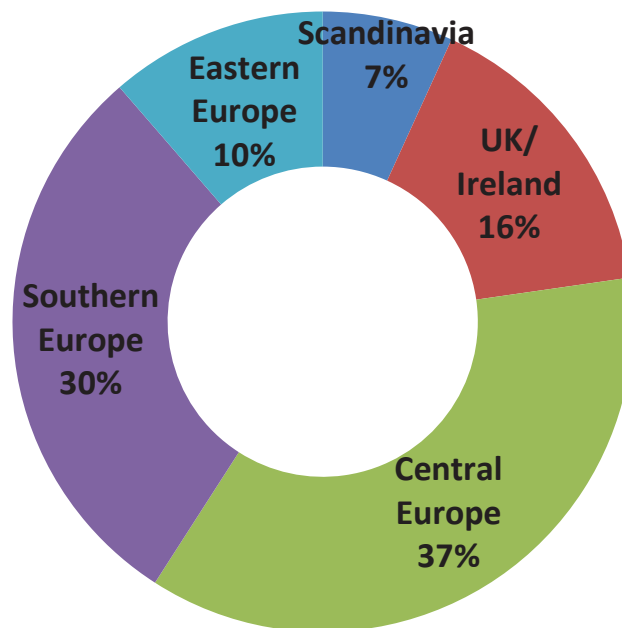
**Scandinavia:** Sweden, Norway, Denmark, Finland and Iceland

**UK/Ireland:** England, Northern Ireland, Scotland, Wales and Ireland

**Central Europe:** Germany, Austria, Switzerland, Netherlands, Belgium and Luxembourg

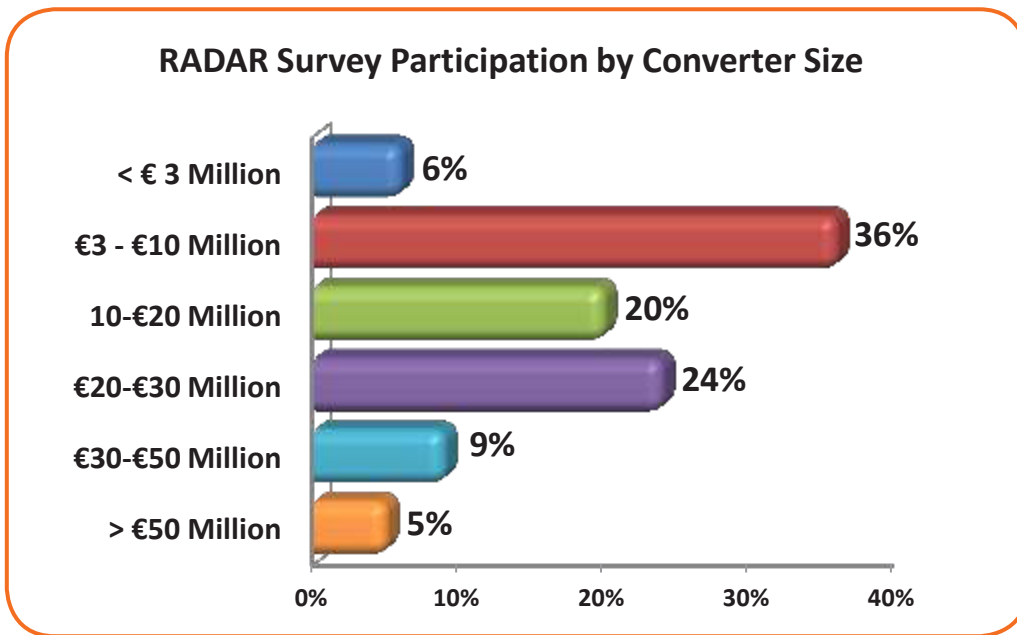
**Southern Europe:** France, Italy, Spain, Portugal, Greece, Turkey and Cyprus

**Eastern Europe:** Russia, Poland, Czech Republic, Slovakia, Bulgaria, Hungary, Romania, Ukraine, Belarus, Moldova, Estonia, Latvia, Lithuania, Slovenia, Croatia, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia

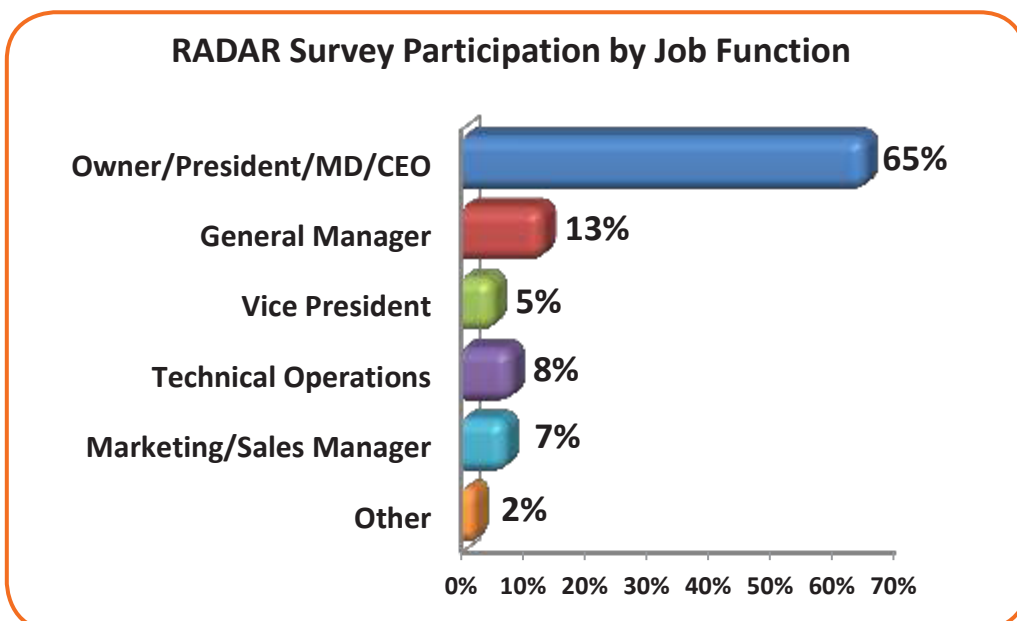


## Survey Respondent Company Size and Job Function

Participating converters were asked to indicate their company's annual revenues, and each respondent was asked to indicate their job function. More than half of all participants have annual sales revenue of €3-20 million and more than 5% of participating companies have annual revenues of more than €50 million.

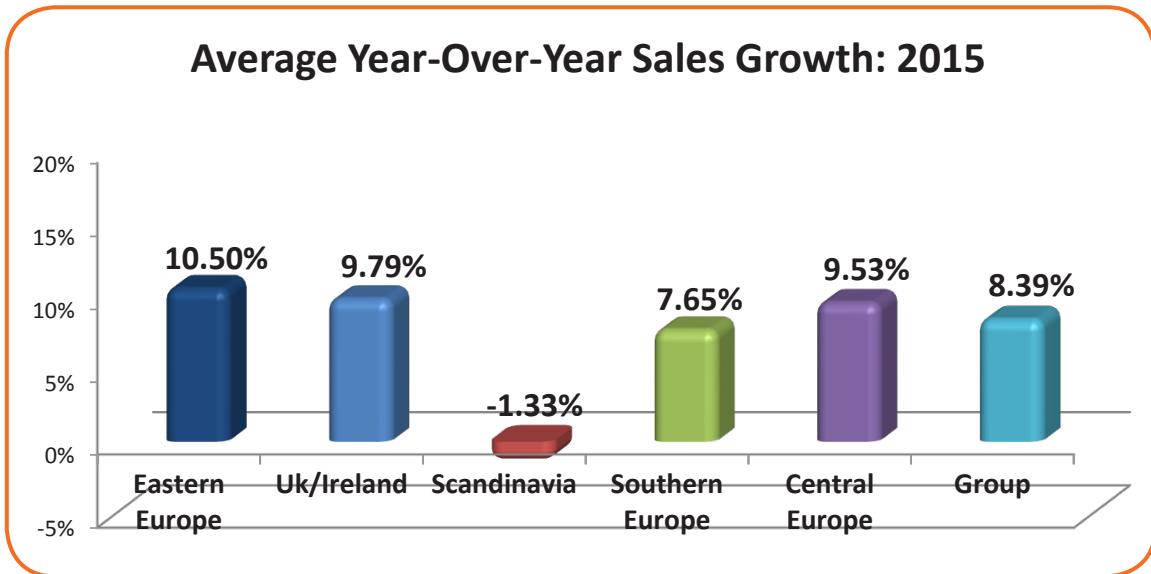


More than 60% of survey respondents were company owners, presidents, managing directors or CEOs. This is the highest participation ever received from this group. The chart below breaks down the range of job functions for the all converting companies that filled out the survey.

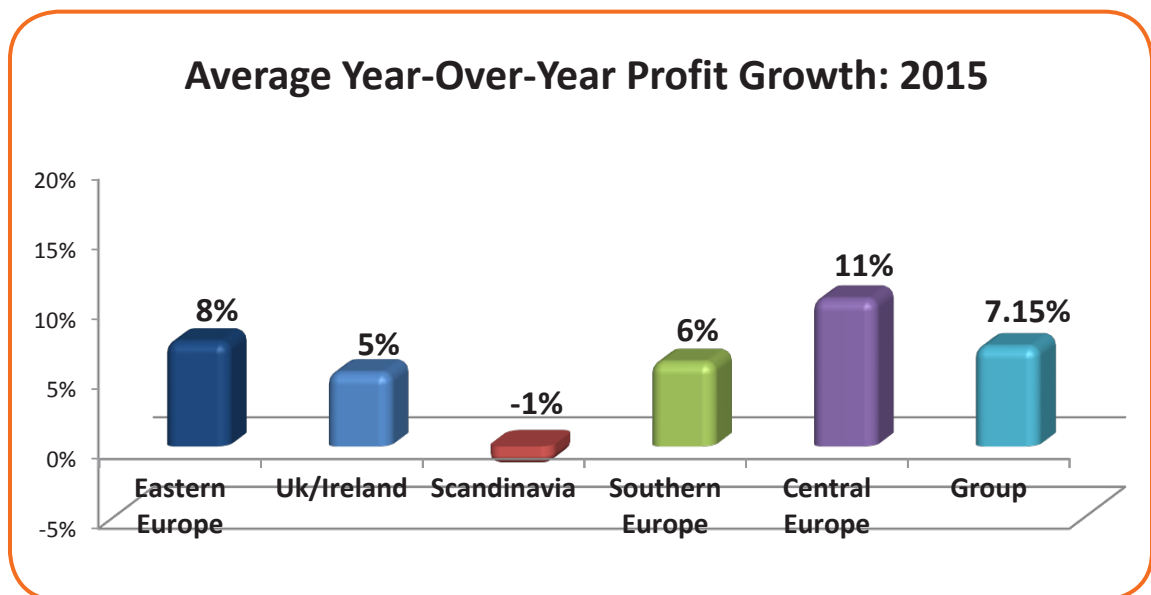


## Year-Over-Year Sales and Profit Growth

In order to gauge converter growth in 2015, survey respondents were asked to report on their company's year-over-year sales and year-over-year profitability growth and/or contraction rates. The chart below shows average 2015 sales revenue growth per region.



Regional sales growth rates indicate that 2015 was a year of continued growth for all regions except Scandinavia where average sales revenues for converters were down. Eastern Europe converter growth continues to outpace the other regions however once again sales growth averages in the UK and Ireland were just under 10%. The chart below shows average profit growth for converters in 2015 per region.



With the exception of Central Europe, year-over-year profitability growth rates are down in every region. Governments of some of the region's largest countries are reporting plans to raise minimum wage and to force employers to fund apprenticeships. As converters' businesses continue to be saddled with rising employer costs, the question remains whether companies will be able to pass increased employer costs onto their customers.

## **Indexing Converter Sales Growth 2013 - 2015**

For the past three years, the RADAR Converter Survey has been tracking converter sales revenue growth. This allows us to create an index, enabling the comparison of sales revenue growth for converters over a specified time period. It also allows us to compare and contrast the historical growth curves between each region.

The table on the following page illustrates year-over-year average converter sales growth per region for 2013 – 2015. Eastern European converters have witnessed highest growth rates, averaging 27.8% over the three-year forecast period. Lowest growth rates have been in Scandinavia with the region's converters averaging 11.4% over the three-year forecast period.

# SECTION 1

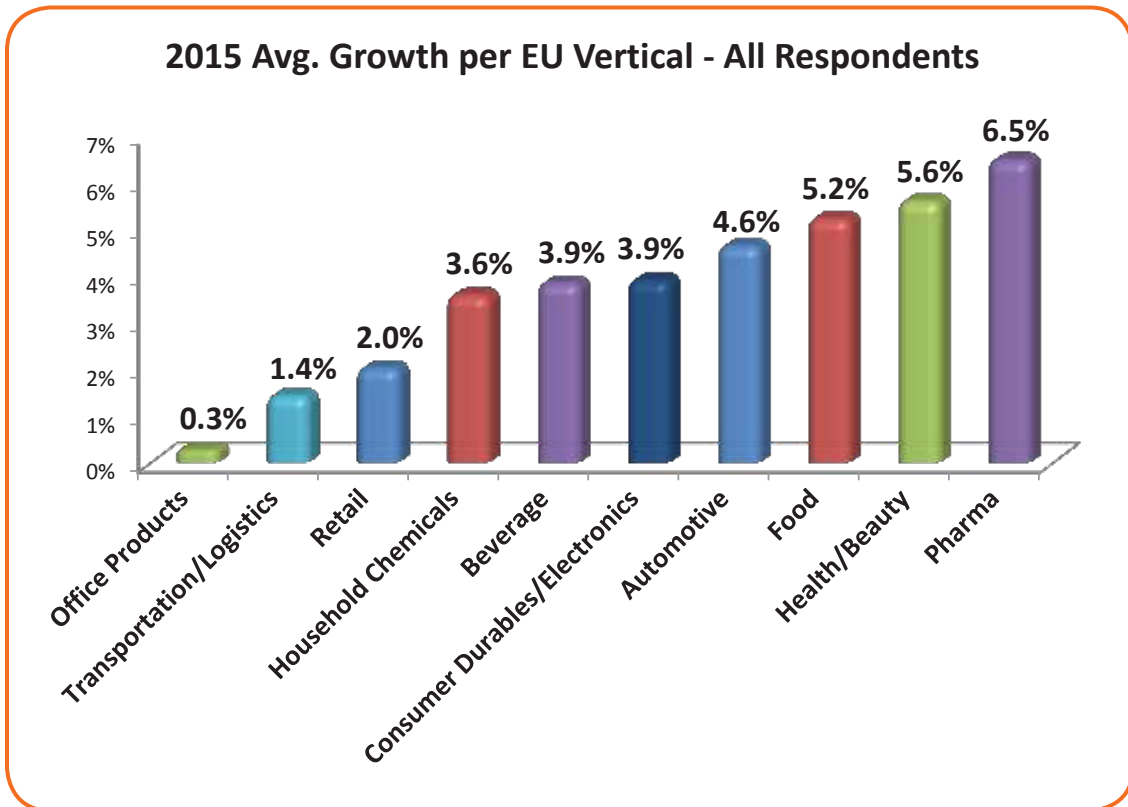
Year-Over-Year Average Converter Sales Growth by Region 2013-2015			
<i>Eastern Europe</i>	<i>2013 Avg. Sales Growth</i>	<i>2014 Avg. Sales Growth</i>	<i>2015 Avg. Sales Growth</i>
<p>2012 2013 2014 2015</p>	7.2%	10.1%	10.5%
<i>UK/Ireland</i>			
<p>2012 2013 2014 2015</p>	5.3%	9.9%	9.79%
<i>Scandinavia</i>			
<p>2012 2013 2014 2015</p>	4.2%	8.5%	-1.3%
<i>Southern Europe</i>			
<p>2012 2013 2014 2015</p>	4.5%	5.7%	7.6%
<i>Central Europe</i>			
<p>2012 2013 2014 2015</p>	5.2%	4.0%	9.5%
<i>Group – All Regions</i>			
<p>2012 2013 2014 2015</p>	5.7%	6.7%	8.4%

Source: LPC, Inc. for the FINAT RADAR

## Growth per End-Use Category

As in previous converter surveys, the 2016 survey asked participating companies to indicate revenue growth, or contraction rates, for the top five end-use sectors each company serves. It's important to note that 'Top Five' is defined as the sectors companies sell the most products to, (not necessarily their most profitable markets).

The graph below shows average converter growth per end-use category for 2015.



Strongest growth for converters in 2015 came from the pharmaceutical, health & beauty and food categories with pharmaceutical label sales topping the group with 6.5% average sales growth for converters printing and converting products sold into the pharmaceutical marketplace.

World demand for pharmaceutical packaging products is projected to increase 6.5-7% annually to more than €100 billion by 2020. Demand for pharmaceutical products in Europe will remain high due to increased product introductions, an ageing population, heightening governmental standards regulating unit dose and advancements in anti-counterfeit packaging applications across medicinal categories.

*"Note: End-use vertical sales growth averages lower than overall converter sales growth due to the ways converters are reporting performance for the categories they serve. For example, more than 98% of participating converters reported positive sales growth for 2015; however more than 30% of converters witnessed flat, or declining, sales in one or more end-use vertical sectors reported thereby driving down performance averages for this metric.*

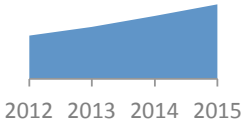
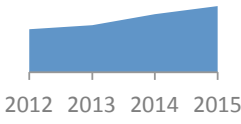
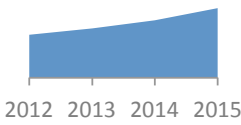


The largest spike in end-use category label sales was in the automotive category with 2015 growth 3.6% higher than converters reported last year. The ACEA, Europe’s auto manufacturer association, reports that new passenger vehicle sales was up 9.3% from 2014. However, ACEA predicts that new passenger vehicle sales will decline year-over-year through to 2019.

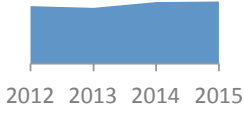
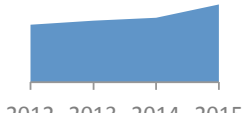
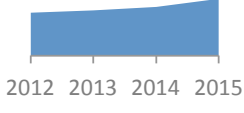
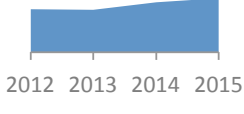
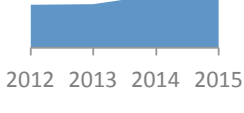
## Indexing Converter Growth Rates Across End-Use Categories

Like with sales growth, since the RADAR has been tracking converter growth rates in each major end-use category we are able to present an index that shows growth over the three-year period and once again allows us to compare and contrast historical performance for each category.

The table starting here and continuing on the following page indicates CAGR per end-use category from 2013 – 2015.

Converter Growth Rates per End-Use Category: CAGR 2012-2015		
Category	Indexed Growth Curve	CAGR 2012-2015
Food	 <p>2012 2013 2014 2015</p>	4.60%
Beverage	 <p>2012 2013 2014 2015</p>	3.43%
Health/Beauty	 <p>2012 2013 2014 2015</p>	3.94%
Pharma	 <p>2012 2013 2014 2015</p>	3.97%
Household Chemicals	 <p>2012 2013 2014 2015</p>	3.63%

# SECTION 1

Converter Growth Rates per End-Use Category: CAGR 2012-2015		
Category	Indexed Growth Curve	CAGR 2012-2015
Retail		1.68%
Automotive		2.26%
Consumer Durables/Electronics		2.09%
Office Products		0.53%
Transportation/Logistics		1.94%

Global economic research firm Mintel reports that food packaging growth across Europe has been driven by savory snacks, baby food, ready-made meals and chilled/frozen foods. In the European beverage market, the non-alcoholic beverage sector has performed the strongest, growing by more than 3% per annum.

## Converter Run Sizes per End-Use Sector: Conventional and Digital Labels

As reported in the results from last year’s RADAR Converter Survey, a trend that continues to have a major impact on the global labeling sector is the steady decline in average run sizes. Converters report that average run size/job size lengths are still in decline and that this is a persistent reality on their production floors.

Once again, the 2016 survey asked converters to break down their average run sizes by the end-use categories they serve. ‘Run length’ was defined as the size, in linear meters, of a finished order that a company sends to their customer after the subtraction of production waste. For the second time, this year’s survey took this subject a step further. Respondents were asked to break down run sizes per end-use vertical for both their conventional jobs, in addition to their digital jobs (for companies that had digital presses). The table below indicates average conventional and digital run sizes per end-use sector.

Average FINAT Converter Run Lengths 2015: Conventional and Digital		
End-Use Category	Average <u>CONVENTIONAL</u> Run Length in Linear Meters	Average <u>DIGITAL</u> Run Length in Linear Meters
Food	8.719 l/m	1.271 l/m
Beverage	8.463 l/m	1.963 l/m
Health & Beauty/Cosmetics	4.946 l/m	720 l/m
Pharmaceuticals	2.191 l/m	478 l/m
Household Chemicals	6.250 l/m	550 l/m
Industrial Chemicals	3.429 l/m	810 l/m
Retail	5.950 l/m	810 l/m
Automotive	3.196 l/m	263 l/m
Consumer Durables (includes electronics)	2.111 l/m	356 l/m
Office Products	4.750 l/m	267 l/m
Transport/Logistics	6.531 l/m	917 l/m
All Categories	4.908 l/m	759 l/m

Source: LPC, Inc. FINAT RADAR  
*\*Data taken from FINAT converters located in every major European region*

Once again, conventional run sizes are highest in the food and beverage sectors however both categories have witnessed a sharp decrease according to converter data over the past year. Since this is the second year we are asking converters to submit average run size data per end-use category, we are able to compare the results of the past two converter surveys. The table below shows the percentage change from the previous year's results, both for conventional and digital run sizes per category.

Average FINAT Converter Run Lengths 2015 vs. 2014: Conventional and Digital		
End-Use Category	% Change in <u>CONVENTIONAL</u> Run Lengths Year-over-Year	% Change in <u>DIGITAL</u> Run Lengths Year-over-Year
Food	18% decrease	38% decrease
Beverage	38% decrease	4% increase
Health & Beauty/Cosmetics	37% decrease	17% increase
Pharmaceuticals	13% decrease	1% decrease
Household Chemicals	25% decrease	27% increase
Industrial Chemicals	25% decrease	N/A
Retail	8% decrease	22% decrease
Automotive	32% decrease	2% decrease
Consumer Durables (includes electronics)	36% decrease	34% decrease
Office Products	18% increase	32% decrease
Transport/Logistics	No change	28% decrease
All Categories	22% decrease	12% decrease

Source: LPC, Inc. FINAT RADAR  
*\*Data taken from FINAT converters located in every major European region*

Conventional run sizes were down year-over year 22% and digital run sizes were down 12%. Sharpest conventional run size declines were in the beverage, health & beauty and consumable durables categories.

The most recent converter survey also asked companies to indicate their 'breakeven' run lengths. By 'breakeven' we mean the length a run size/job size needs to be to actually be profitable on a conventional printing press. Anything less than this breakeven run size would be produced at a loss.

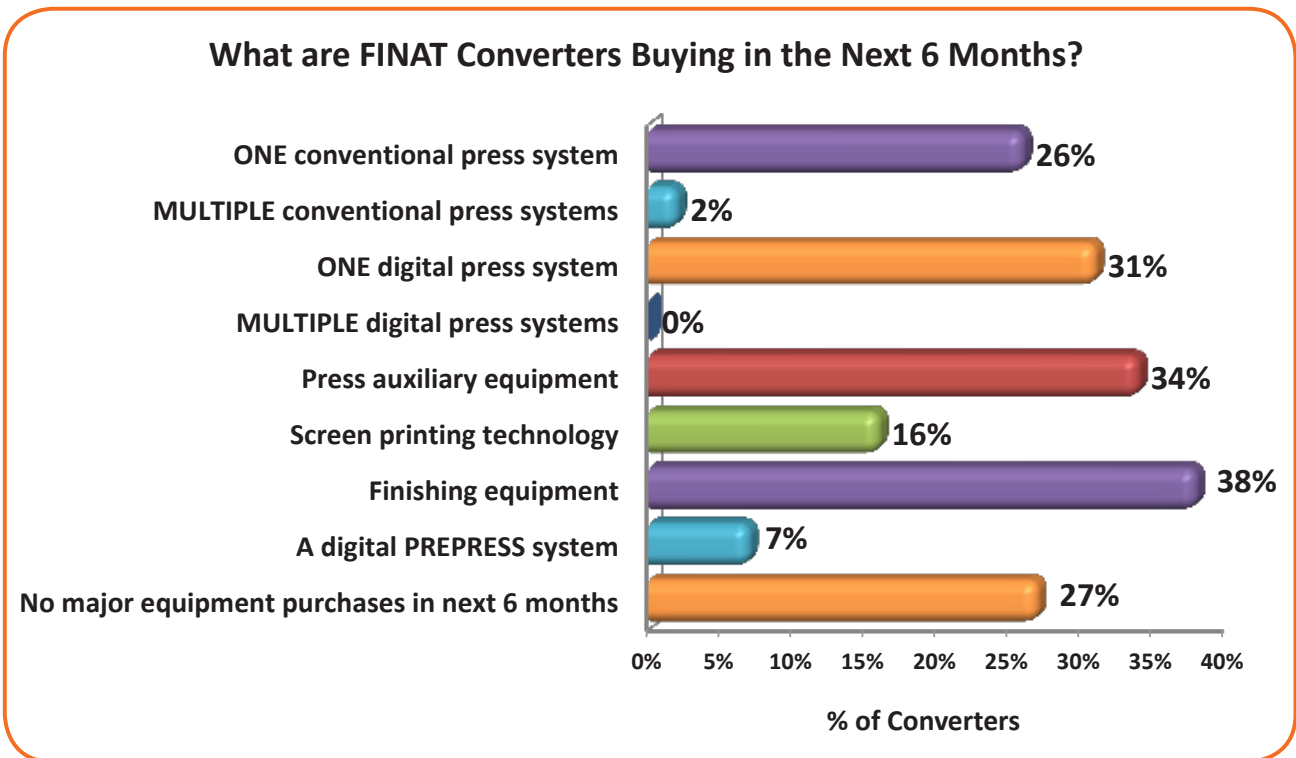
**The average breakeven run size for converters in 2015 was 1,498 linear meters.**

## FINAT Converters' Capital Equipment Procurement Projections: Q3 & 4 2016

The next question in the Converter Survey asked FINAT European converters to indicate what types of capital equipment investments their companies are planning on making over the course of the next six months. Companies were given the following options to choose from and directed to select all those that apply:

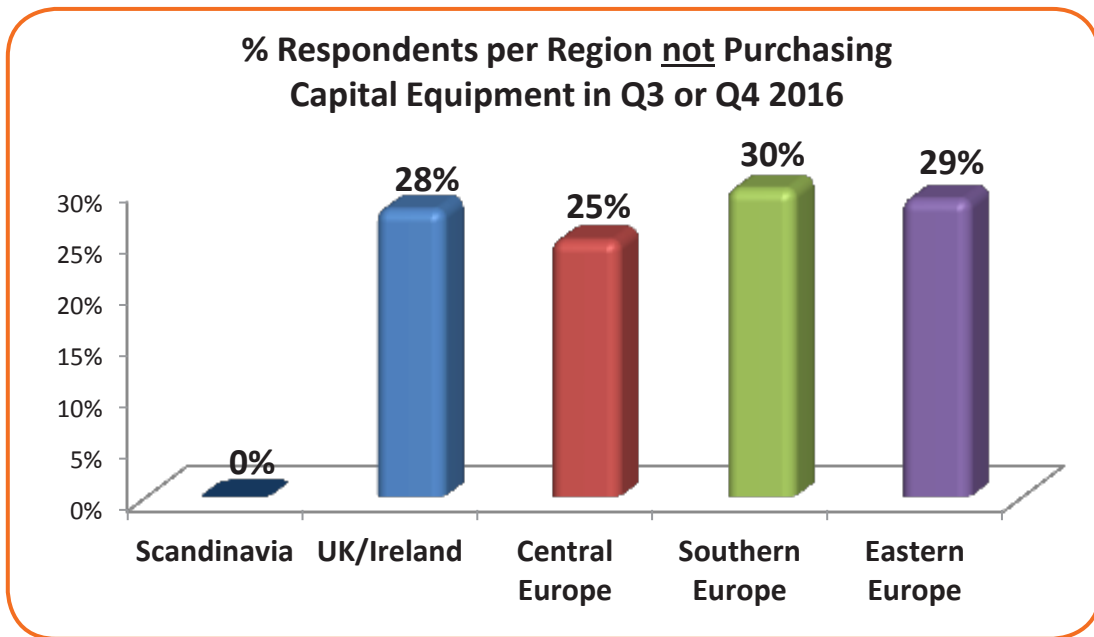
- My company is planning on purchasing ONE conventional (non-digital) printing press within the next 6 months
- My company is planning on purchasing MULTIPLE conventional (non-digital) printing presses within the next 6 months
- My company is planning on purchasing ONE digital press system within the next 6 months
- My company is planning on purchasing MULTIPLE digital press systems within the next 6 months
- My company is planning on purchasing press auxiliary equipment within the next 6 months (turret rewinder, butt splicer, video inspection system, etc.)
- My company is planning on purchasing screen printing technology within the next 6 months
- My company is planning on purchasing finishing equipment within the next 6 months
- My company is planning on purchasing a digital prepress system within the next six months
- I do not foresee my company making any major capital equipment purchases within the next 6 months

The chart below shows the procurement projections of FINAT European converters over the next six months:

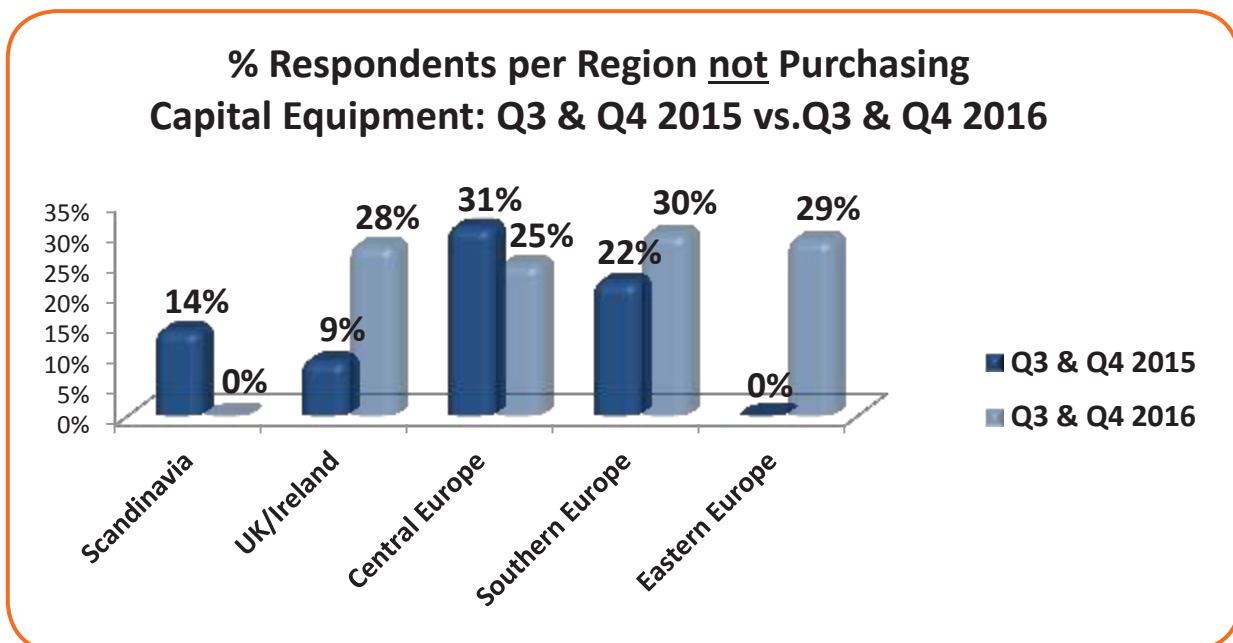


# SECTION 1

For the first time since tracking converters' equipment procurement, *the number of projected digital press sales outpaces the number of projected conventional press sales*. Twenty-eight percent of participating converters indicated their companies would be purchasing one, or more, conventional presses before the end of 2016 and 31% of converters indicated their companies would be purchasing a digital press system. The chart below shows the percentage of respondents indicating their companies would not be purchasing a major piece of capital equipment over the course of the next six months.



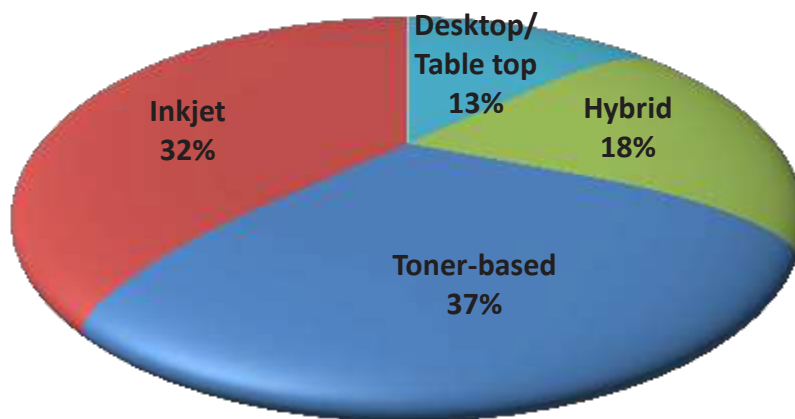
The results from this survey contrast sharply with last year's survey. Converters' projections indicate a capital equipment procurement slowdown is on the horizon in the near future with higher percentages of companies indicating they would not be making a major investment for the remainder of 2016.



While percentages in Central and Southern Europe don't vary significantly from the previous year, Eastern Europe's data is a big change. While every Eastern European converter indicated they would be making some type of capital equipment investment a year ago, 29% of converters in Eastern Europe are indicating they will not be making such an investment for the remainder of this year. UK/Ireland also had a sizable increase with 28% of converters indicating they would not be making a major capital equipment purchase over the next six months compared to 9% indicating the same one year ago.

Companies that indicated they would be purchasing a digital press over the next six months were asked to specify the type of press they would be purchasing by digital platform format. The graph below breaks down projected digital press procurement by platform type.

## What Types of Digital Presses will Converters be Buying?

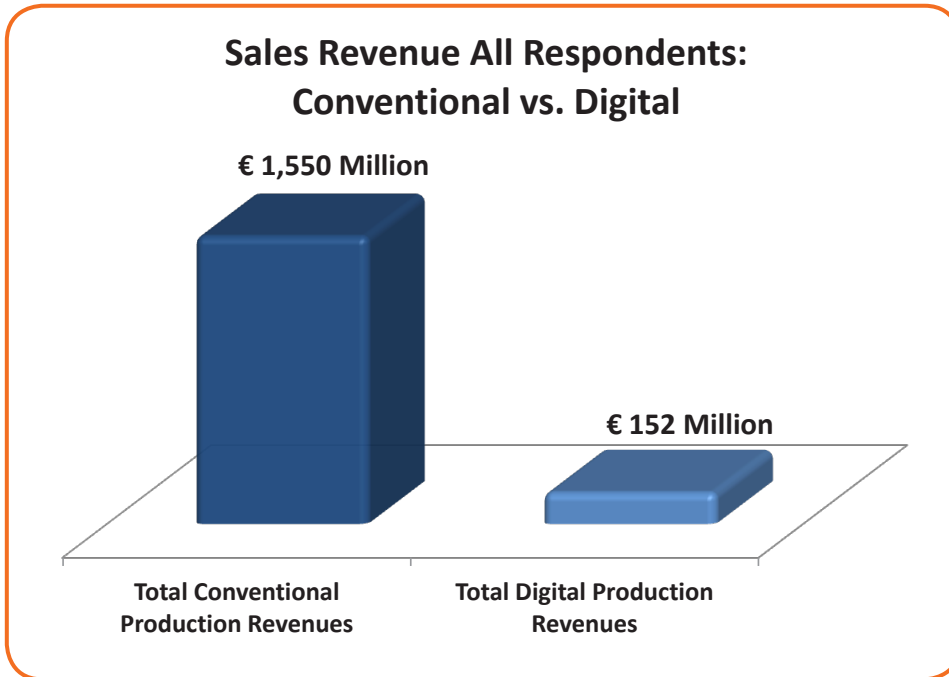


For the first time, when asking converters to indicate the types of digital platforms they would be purchasing, the categories of 'hybrid' and 'desktop/table top' were included in the survey. The RADAR will continue to track digital press sales projections using these four categories moving forward. It's also important to note that 'electrostatic/laser' was also a category included in the questionnaire however no converters indicated that they would be purchasing this platform type.

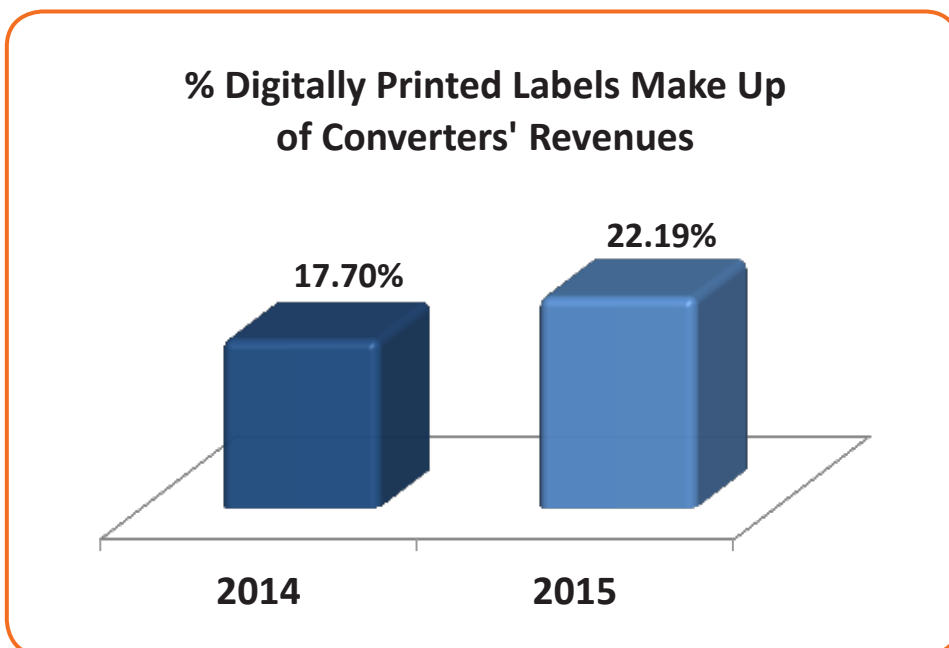
In order to succeed in today's marketplace, it is imperative that digital press suppliers understand the shifting perspectives and production realities of European label converters. These converters have more digital press options available than ever before and to effectively develop, market and sell their products, digital press suppliers need direct access to the requirements, thought processes and technology assumptions of their label printing customers and prospects. In the coming years, the FINAT RADAR will be able to develop a digital press index that historically compares and contrasts projected sales performance for each digital platform.

# SECTION 1

In addition to asking companies about the type of digital presses they predicted their companies would purchase, all respondents were also asked to indicate the percentage of their total sales volume in 2015 that was comprised of digitally printed products. The chart below breaks down conventional versus digital production for all survey participants.



Digital production represented 9.83% of total aggregated sales revenues of all participants. This number is just slightly higher (1-1.5%) than the conventional/digital label value breakdown of the region overall. Digital sales revenues averaged 22.19% for the entire respondent group that indicated they have digital presses.





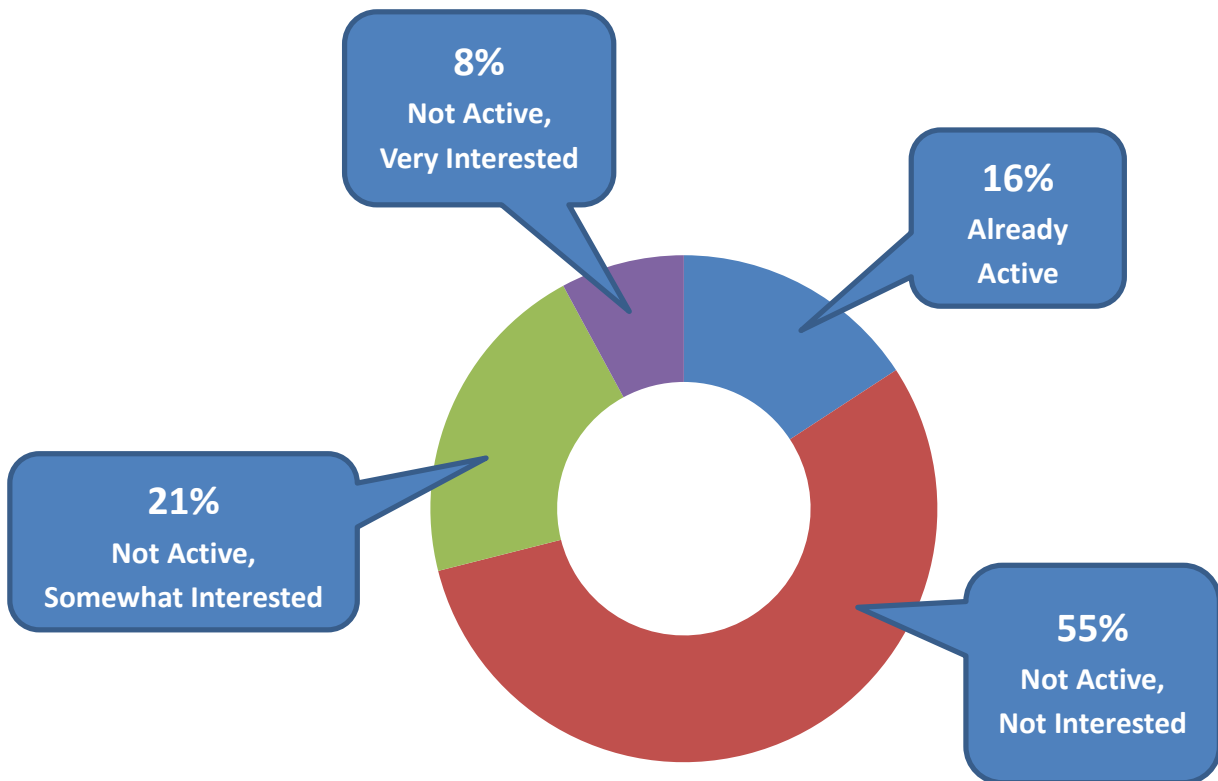
## Beyond Self-Adhesive: In what other Markets are Converters Currently Active and what is their Interest for the Future?

For this edition of the FINAT RADAR, we wanted to gauge the interest that converters have in pursuing markets outside of self-adhesive, in addition to the markets they were the most interested in for the future. In the survey, converters were asked to mark their status within each one from the following options:

- Already Active
- Not Active, Not Interested
- Not Active, Somewhat Interested
- Not Active, Very Interested

The first market that was explored in this way was the pouch sector and the graph below indicates converters' responses to this market.

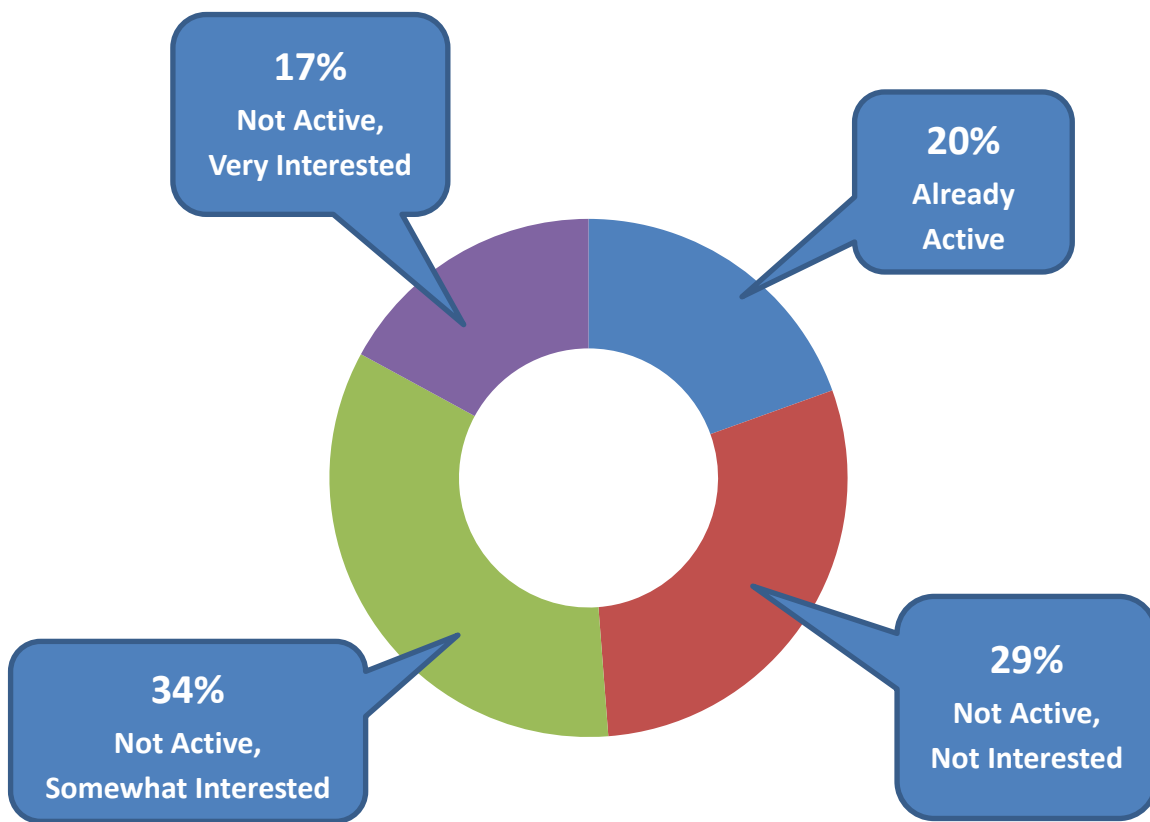
### Beyond Self-Adhesive: Converting Pouches



Sixteen percent of converters indicated that their companies already actively produce pouches, compared to 12% indicating the same in last year's converter survey. More than half of respondents indicated they are not currently active in converting pouches, nor are they interested in doing so and 8% indicated that they do not currently print pouches however are very interested in doing so in the near future.

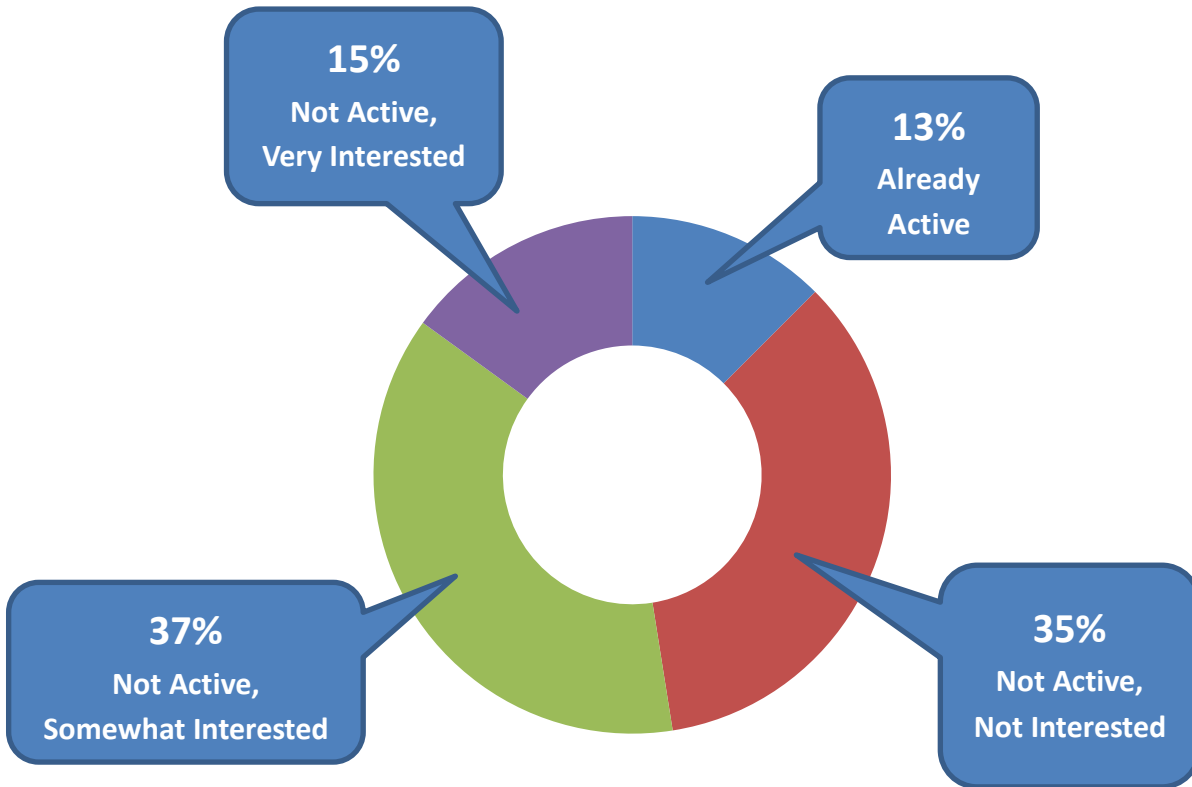
As reported in the June 2015 issue of the RADAR, the European stand-up pouch market is forecasted to grow at 5.5-6.5% per annum to 2020, more than twice what projected volume growth is in the region's flexible packaging sector as a whole. Stand-up pouch growth continues to be driven by consumer preferences for stand-up pouches over traditional rigid packaging. The lighter weights, reduced material utilization and lower shipping costs of stand-up pouches continues to drive adoption rates among consumer packaged goods companies.

## Beyond Self-Adhesive: Converting Sleeves (Shrink and/or Non-Shrink)



Interest among converters to pursue the sleeve market has diminished slightly over the past year. In last year's survey, 20% of converters indicated that they are 'not active and very interested' in entering the sleeve label space. In this most recent survey and as the graph above shows, 17% of converters indicated the same. The diminished interest in pursuing sleeves is exemplified further as just 20% of converters participating in the most recent RADAR survey are already active in the sleeve market while 40% of last year's converters participating in the survey were active in the printing of sleeves.

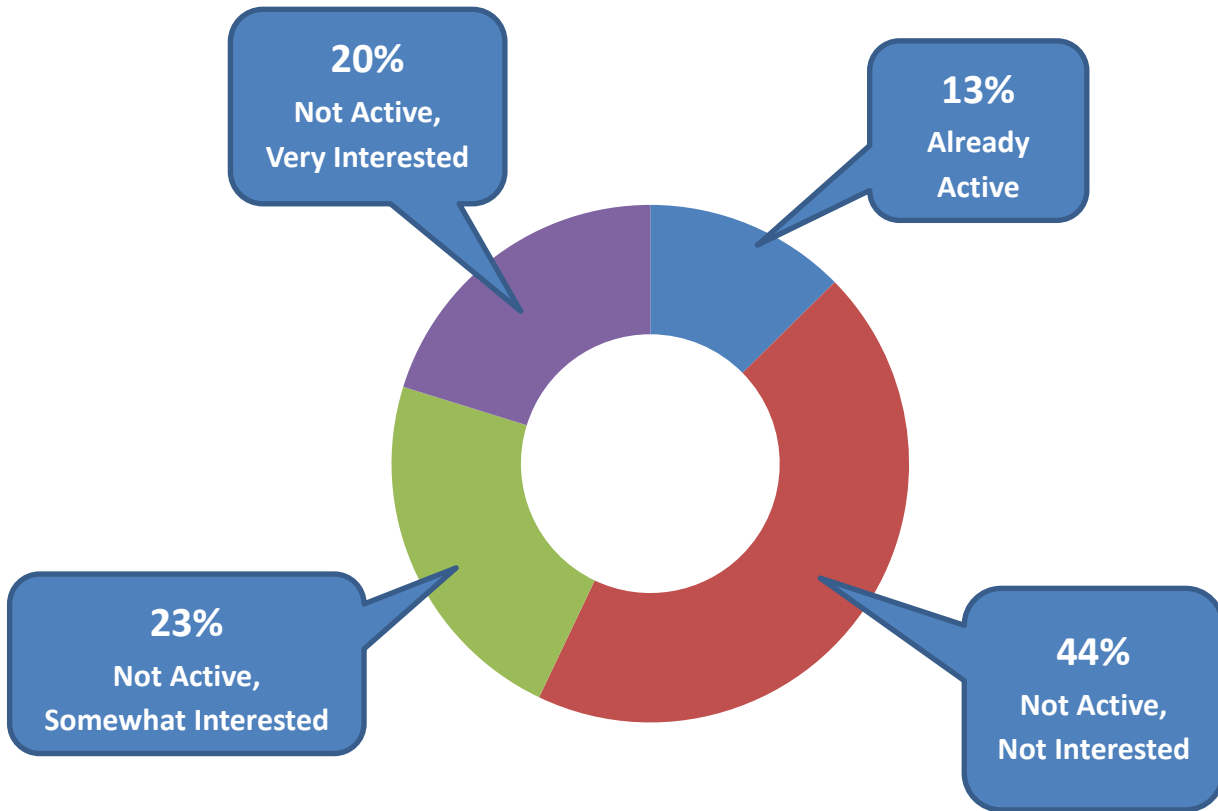
## Beyond Self-Adhesive: Converting Flexible Packaging Applications (Other than Pouches and Sleeves)



As discussed in the June RADAR of 2015, out of all the printed packaging sectors, the flexible packaging industry is more impacted by run size contractions than any other. European brand owners in the food industry are reporting job sizes have gone from millions of units to hundreds of thousands of units over the past five years and continue to go down (a 'unit' equals one pouch, bag, wrap, sachet, etc.). Due to such marked run size contractions in some end-use flexible packaging categories, a small number of traditional narrow web label printers have been investing in 700-900mm wide flexible packaging CI presses to integrate onto their production floors.

Just 13% of participating converters are already active in the printing of traditional flexible packaging applications. Fifteen percent that are not presently active indicated they are 'very interested' in exploring potential opportunities in this market and 37% indicated they are 'somewhat interested' in pursuing further opportunities in the flexible packaging space.

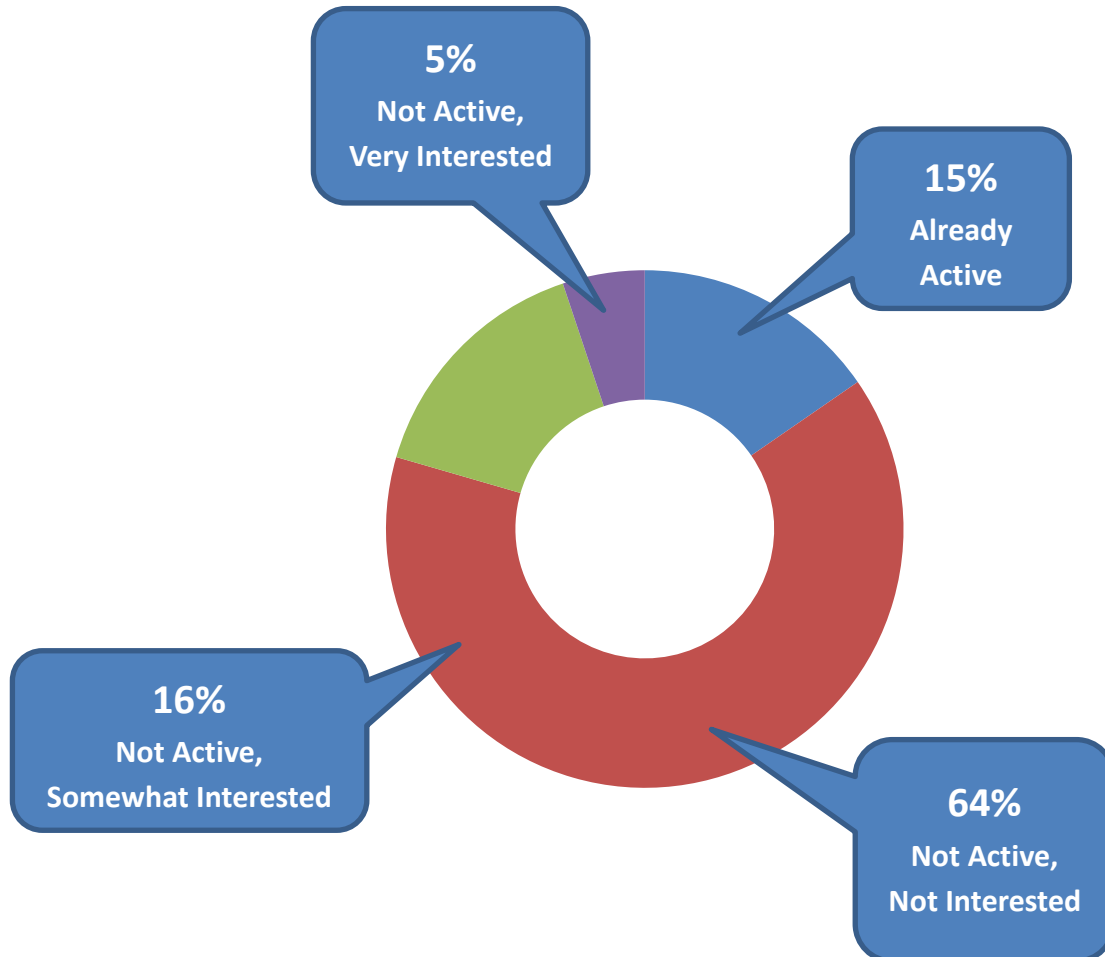
### Beyond Self-Adhesive: Converting In-Mould Applications



Out of all the print areas other than self-adhesive analysed in the converter survey, the sector with the most increased interest compared to last year's results was the printing of in-mould applications. In 2015, 11% of converters indicated that they were not active however 'very interested' in exploring the possibility of printing in-mould labels. In the most recent survey, 20% of converters indicated that they are very interested in in-mould. In last year's survey 18% of participating converters said that they were 'somewhat interested' in in-mould and in the most recent survey 23% of converters indicated the same.

Europe remains the dominant global player in global in-mould label consumption representing more than 50% of the total value of the in-mould labeling market worldwide.

## Beyond Self-Adhesive: Converting Folding Carton Applications



Converter interest in expanding into the folding carton sector is holding steady as 5% of polled converters not yet active in the sector cited they are 'very interested' in producing cartons in the foreseeable future.

The global folding carton market is estimated to be worth €90 billion by 2020 with Asia counting for more than 60% of total folding carton consumption.<sup>1</sup> The health and personal care sectors are the biggest users of folding cartons, followed by tobacco and household chemicals/household care. Global folding carton market growth is estimated to average 3.5% over the next five years.

The reach of converters beyond self-adhesive label applications was evident at Labelexpo Europe 2015. According to Lisa Milburn, Managing Director of Labelexpo Global Series, 53% of the show's total exhibitor base showcased products for the flexible packaging market and 32% of exhibitors featured products dedicated to folding carton production.

<sup>1</sup> Smithers Pira, *The Future of Folding Cartons to 2020*

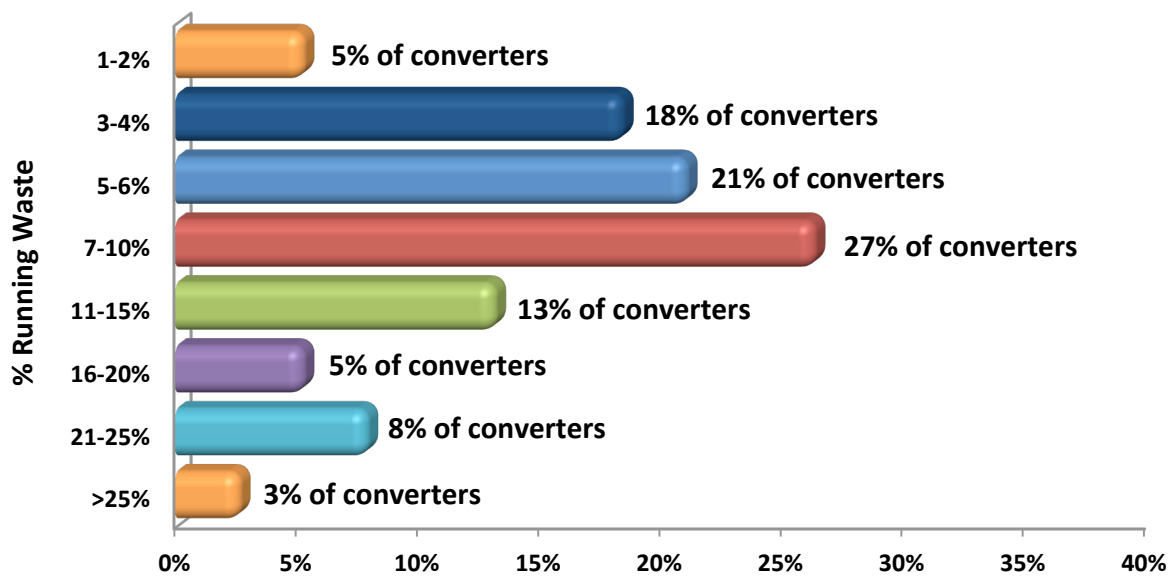
## BENCHMARKING METRICS

### A Look at Converters' Current Production and Operational Trends

Beginning with the June 2015 issue of the FINAT RADAR, the first edition of each year will have a special section that reports on specific questions and analysis derived from the annual converter survey. For this report, converters were asked to indicate some key production metrics in addition to market forces that have a direct impact on their day-to-day operations.

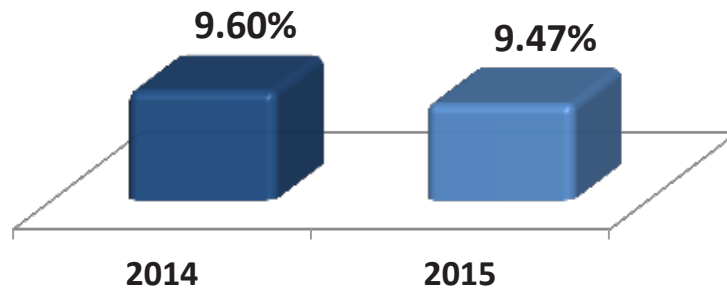
The first of these questions asked converters to indicate their companies' average running waste as a percentage. 'Running waste' was defined as the waste created during the set-up of a job, minus the matrix removal. Converters were asked to select their companies' waste average from a range of values that were given and the chart below breaks down the percentage of converters that fall into each value range.

**Average Running Waste for Converters in 2015**



The average running waste for all respondents was 9.47%. Twenty-nine percent of surveyed companies average more than 10% running waste and 71% average 10% running waste or less. The chart on the next page shows a year-over-year comparison of converters' average running waste taken from the 2015 converter survey and the most recent one.

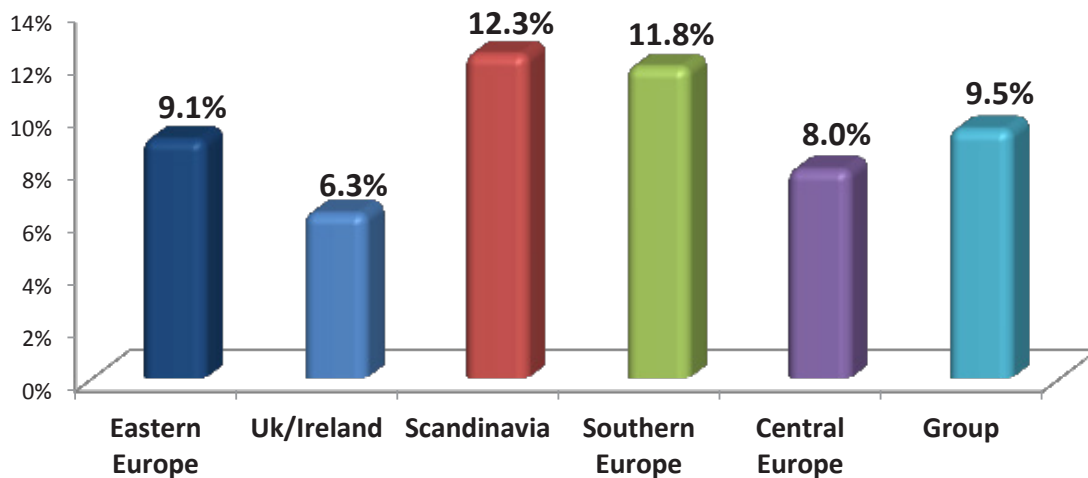
**Average Running Waste for FINAT Converters:  
Year-Over-Year Comparison**



2015 averages are within two-tenths of a percent of those reported by converters in 2014. This metric is one that the FINAT RADAR will continue to track and report on to enable converters to benchmark their own operational performance against the European collective, in addition to regional averages.

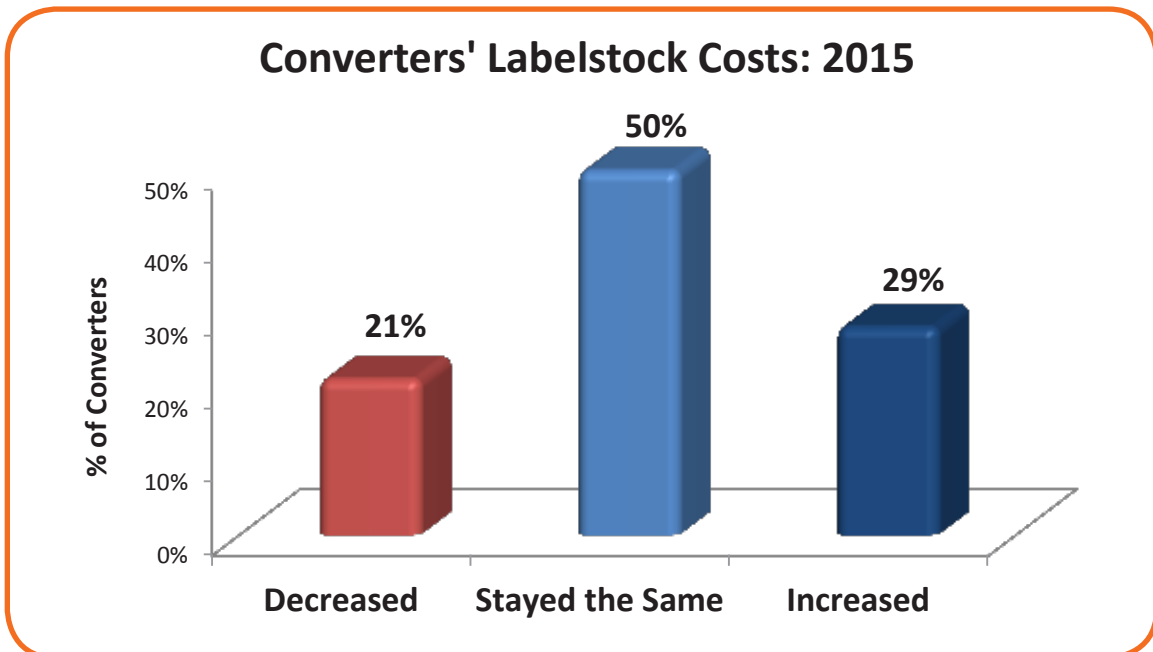
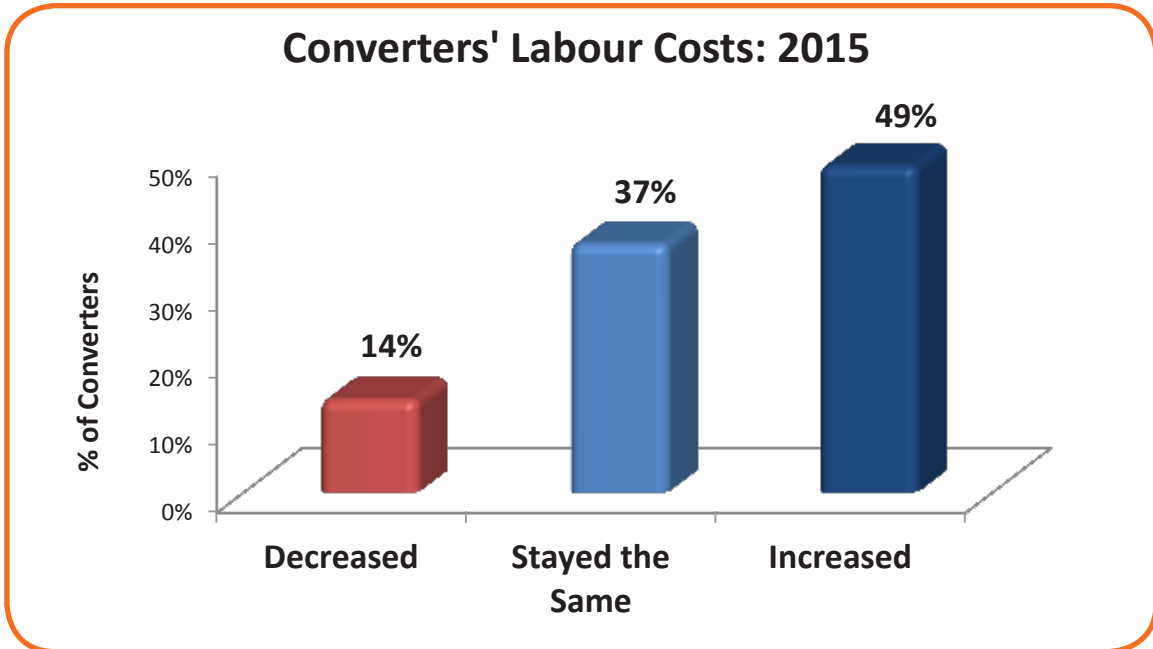
Running waste averages differ region by region with UK/Ireland achieving lowest rates at 6.3% and Scandinavia the highest at 11.8%. The three regions averaging lower than the group average include Eastern Europe, UK/Ireland and Central Europe. The chart below shows average converter running waste per region.

**Average Converter Running Waste per Region: 2015**



# SECTION 2

In addition to running waste, converters were asked to indicate whether their labour and material costs had decreased, remained stable, or increased in 2015. The charts below show the percentage of polled converters that indicated each.



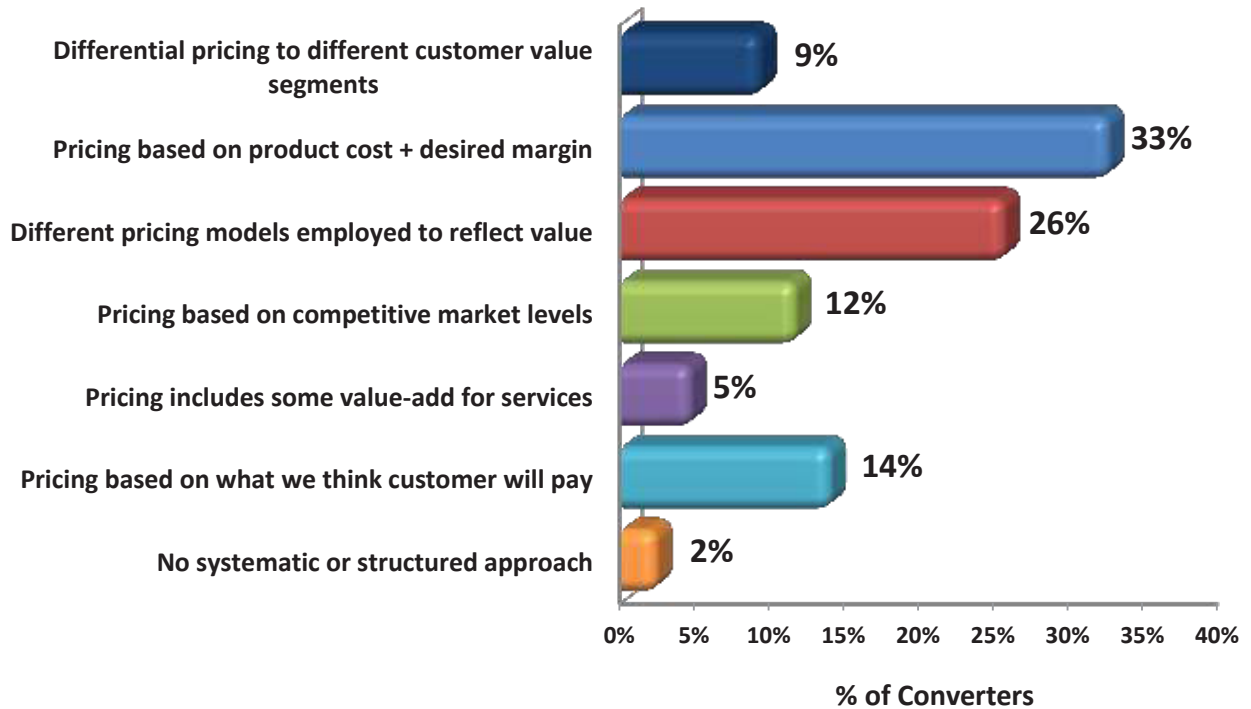
2015 labour costs trending very closely resembles 2014 survey results. Labelstock costs however have had a marked change. In 2015 just 11% of surveyed converters indicated their material costs had increased while 29% of converters indicated an increase in labelstock costs over the past year.



# SECTION 2

In preparation for this year's **FINAT European Label Forum**, converters were asked about their approach to pricing their products. Converters were given a list of choices to choose from and the graph below shows a breakdown of the number of companies using each pricing methodology.

## FINAT Converter Members' Approach to Pricing



*Note: percentages do not equal 100% due to rounding*

The majority of converters employ two primary methods for creating pricing structures for their products: 1) Pricing is based on the cost of a product added to the desired margin and 2) Varying pricing models are used to reflect the different values of different applications. What's interesting however about converters' responses to this question is that even though more than half of respondents employ two primary methodologies, numbers of converters are using each and every option given to choose from.

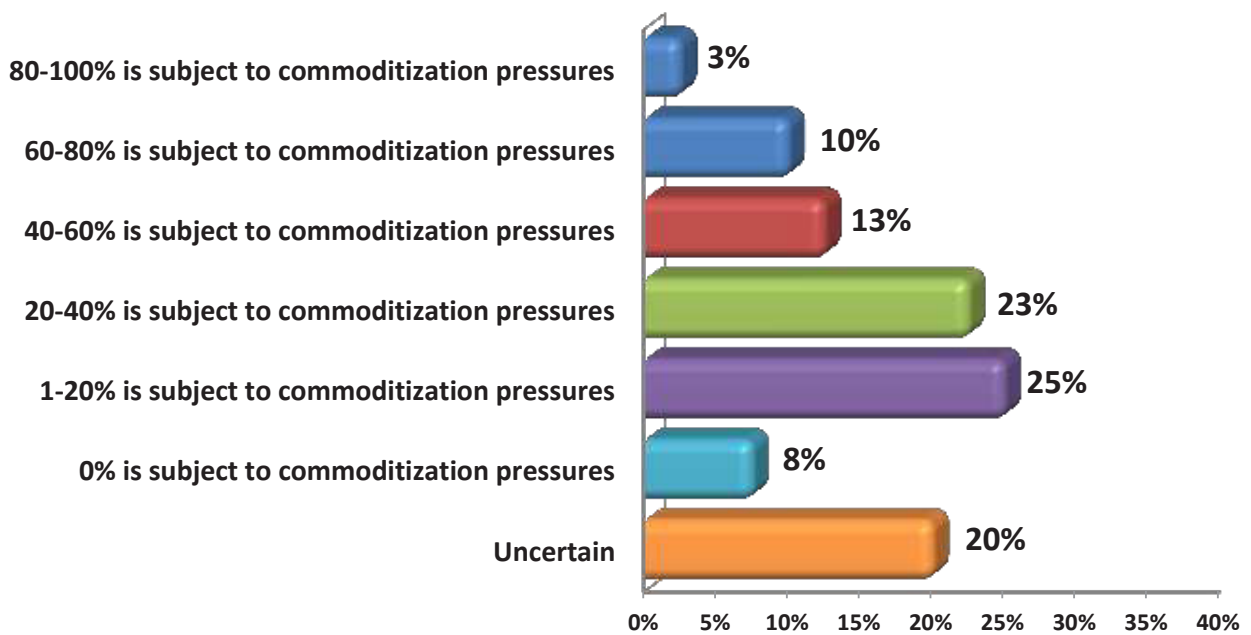
While 12% of companies admit to strategizing prices around competitive market levels, 14% base their pricing on what they think their customers will pay. It's important to note that there isn't a one size fits all for product pricing strategies among FINAT converters, and that methodologies differed within individual regions indicating that there isn't a regional structure converters are adhering to. Converters within each region are employing multiple methodologies.

# SECTION 2

In most B2B markets and value chains, we hear more and more about the increased pressure of commoditization. Some brand owners refer to labels (and other forms of package decoration) as highly commoditized products, making it challenging for converters to formulate ways of bringing value-add to the products they produce.

FINAT converters were asked to characterize their current view of their own businesses in respect to commoditization pressures and to indicate what percentage of their products they believe is subject to these pressures. The graph below shows converters' responses to this important question.

## Product Commoditization among FINAT Converters



*Note: Once again, percentages do not equal 100% due to rounding*

On average, 33% of converters' applications are subject to commoditization pressures.<sup>2</sup> The good news is that for most companies, the minority of their products are subject to commoditization and just 3% of converters indicated that most or all of the products they produce are subject to commoditization pressures.

<sup>2</sup> Calculated by applying a value to each selected range and then averaging all values to come up with a total throughput average for all participants

# SECTION 2

The final question in the FINAT RADAR Converter Survey asked converters about the broader concept of innovation. For the past two years in the compilation of the FINAT Brand Owner Survey, brand owners and packaging buyers were asked what it is their label vendors could be doing better. Nearly every brand owner answer contains the word ‘innovation.’ Brand owners and packaging buyers are constantly saying they want their label vendors to be more innovative and to deliver solutions that help them either differentiate or position themselves better in front of consumers; or that they want their label vendors to consistently provide innovative ways their products’ labels better perform in specific environments.

For the final question in the FINAT RADAR Converter Survey we asked converters what they believe are the most significant ways that they can offer their customers innovation. We gave converters five criteria to rank from most to least significant and the table below indicates how converters ranked each one.

<b>Converter Perspective: Ranked List of Most Significant Ways to Deliver Innovation</b>	
<b>Converter Offering</b>	<b>Rank</b>
Offering cost savings solutions such as thinner material constructions	<b>#1</b>
Offering digital printing and more efficient run solutions	<b>#2</b>
Offering a wider variety of application options such as extended text/booklet labels and shrink sleeves	<b>#3</b>
Offering internal artwork design services so that our customers don’t require an outside source to create their artwork	<b>#4</b>
Offering next generation technology solutions like RFID, smart labels and other security applications	<b>#5</b>
Source: LPC, Inc. FINAT RADAR <i>*Data taken from FINAT converters located in every major European region</i>	

The number one way converters believe they can deliver innovation to their customers is by offering cost saving measures. Today’s sourcing and procurement personnel are more focused on removing costs from the supply chain than ever before and these results indicate converters see themselves as integral to this process.

The criteria ranked second highest was digital printing and efficiency solutions. As we’ve seen in the FINAT RADAR’s run size indices, label run/job sizes are continuing to contract and being able to improve efficiencies and diminish lead time cycles is something that remains paramount to converters in every European region.

## Key Findings from Surveying FINAT Converters

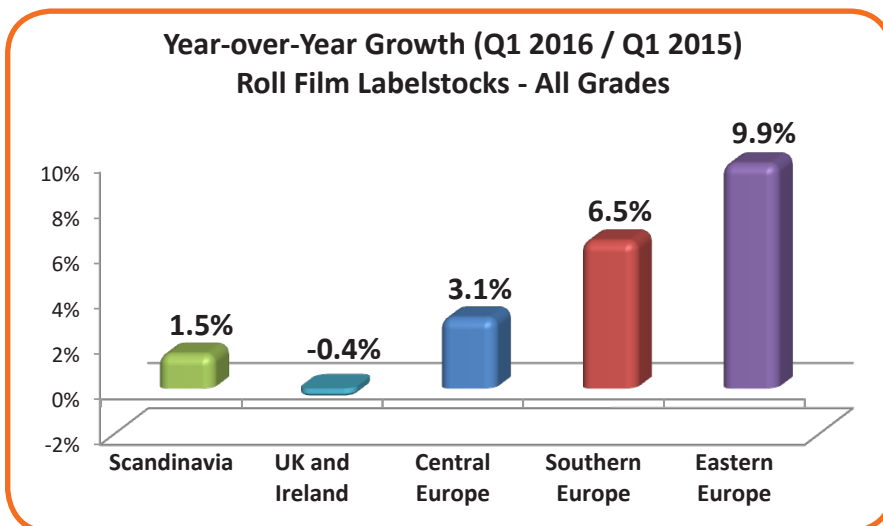
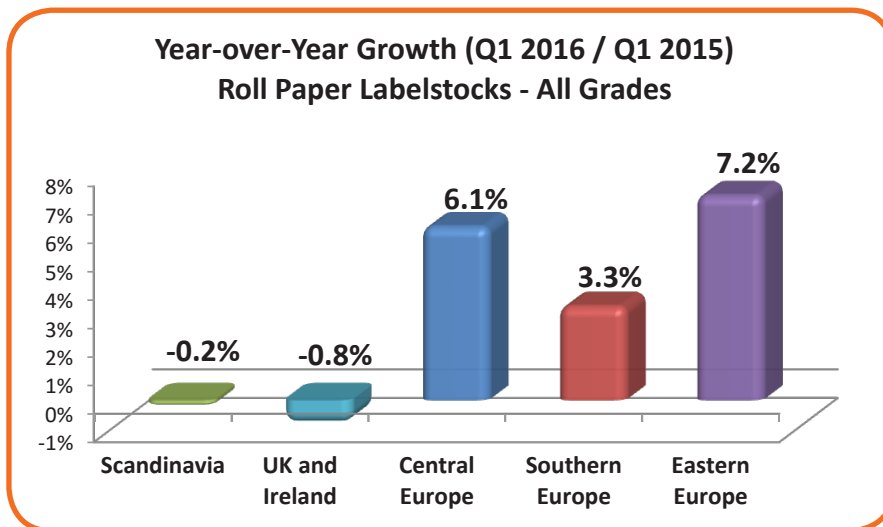
The table below offers a synopsis of the key findings extracted from polling and interviewing FINAT converter members for this issue of the RADAR.

KEY FINDINGS	
<p><b>8.39%</b></p> <p><i>Average 2015 sales growth for FINAT converters.</i></p>	<p>For the vast majority of FINAT converters, 2015 was a very good year. Sales revenues increased on average for every region except Scandinavia, where average year-over-year revenues decreased 1.33%.</p>
<p><b>22%</b></p> <p><i>Average decrease in conventional run sizes/run lengths.</i></p>	<p>Conventional run sizes were down year-over-year 22% and digital run sizes were down 12%. Sharpest conventional run size declines were in the beverage, health &amp; beauty and consumable durables categories.</p>
<p><b>1,498 l/m</b></p> <p><i>Average 'breakeven' conventional run size/run length for converters.</i></p>	<p>The RADAR Converter Survey asked companies to indicate their 'breakeven' run lengths - i.e. the length a run size/job size needs to be to actually be profitable on a conventional printing press. Anything less than this run length would be produced at a loss.</p>
<p><b>31%</b></p> <p><i>Will buy a digital press over the course of the next 6 months.</i></p>	<p>For the first time since tracking converters' equipment procurement in the FINAT RADAR, <b>the number of projected digital press sales outpaced the number of projected conventional press sales.</b> 28% of converters indicated their companies would be purchasing one, or more, conventional presses before the end of 2016 and 31% of converters indicated their companies would be purchasing a digital press system.</p>
<p><b>1 in 5</b></p> <p><i>FINAT converters are 'very interested' in entering in-mould application space.</i></p>	<p>The FINAT Converter Survey gauged the interest that converters have in pursuing markets outside of self-adhesive, in addition to the markets they were the most interested in for the future. Highest interest was in the in-mould sector with 20% of converters indicating they were 'very interested' in entering the in-mould label space.</p>
<p><b>#1</b></p> <p><i>Offering cost savings solutions</i></p>	<p>The number one way converters believe they can deliver innovation to their customers is by offering cost saving measures.</p>

## LABELSTOCK GROWTH PER EUROPEAN REGION

### Year-over-Year Growth Rates for Paper and Film Roll Labelstocks (Q1 2016 / Q1 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. **Average year-over-year growth (Q1 2016 compared to Q1 2015) for European paper labelstocks was 4.0%; while average growth for European film labelstocks sales was 4.6%. Roll paper labelstock growth was driven by increased demand for direct thermal, up 10.1%. Roll film growth was driven by PP with growth up 6.8% while PE year-over-year growth remained stagnant.** The graphs below break down year-over-year growth for each labelstock type per European region.



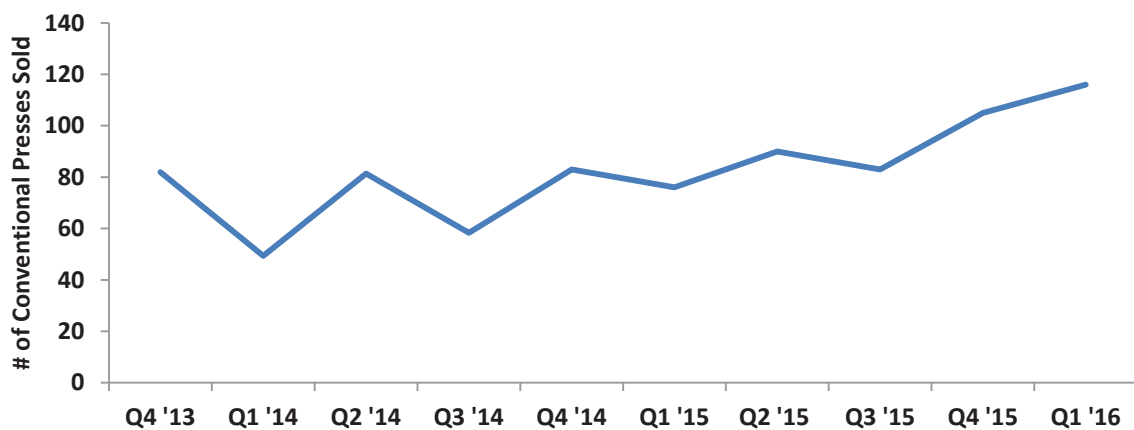
## EUROPEAN CONVENTIONAL PRESS SALES

### Quarter-over-Quarter Volume Sales for Conventional Presses: Q4 2015 & Q1 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 first quarter of 2016.

**Conventional Press Sales in Europe:  
Q4 2013 - Q3 2015**



This graph is once again a reflection of the continuing recovery of the region. It is also an indication of a Labelexpo Europe year occurring at the same time converters are in a mode of sustained growth. Conventional press sales are maintaining higher levels, and it will be interesting to observe the direction of this trend as 2016 continues. It is important to note that the sharpest increase was in the sale of conventional printing presses valued at €1 million and greater. **For the fourth quarter of 2015 and the first quarter of 2016 press sales for conventional machines valued at €1 million and greater are up 45% over reported sales for the previous two quarters.**

# 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 fourth quarter of 2015 and the first quarter of 2016 by price point range.

**Values of Conventional Presses Sold  
in EU Q4 2015 & Q1 2016**

