



FINAT

Linking the Label Community

REPORT & ANALYSIS:

THE EUROPEAN NARROW WEB MARKET

FINAT RADAR 7
1ST SEMESTER 2017

REPORT & ANALYSIS: THE EUROPEAN NARROW WEB MARKET

Dear Reader,

It is my pleasure to present you edition no. 7 of the FINAT RADAR, our 6-monthly label market review. Out of the seven editions released so far, it is the fourth time that our partners from LPC have been surveying FINAT and national association label converter members about their performance in the preceding year.

This year's converter survey again enjoyed a satisfactory response rate, especially when considering that it took place only a few weeks after converters had been surveyed for the Digital Label Study, a special report commissioned by FINAT (also to LPC) that will be released over the coming months as we are getting ready for Labelexpo Europe, the world's leading trade show for our industry.

As the incoming FINAT President, I had the pleasure of previewing the results and I am pleased to have noticed that our industry has continued the positive trend of the previous years. With volume growth rates in excess of 5% and sales growth exceeding 7% over the past 4 years, the European self-adhesive label and narrow-web industry is certainly going through dynamic times.

But past achievements are no guarantee for future success. It is with market studies like the FINAT RADAR as well as the Digital Label Study, but also with the business-driven agenda of our European Label Forum, that FINAT aims to help its members to benchmark their own performance, assess possible scenarios for the medium term, and based on this, make informed decisions about their own business strategy.

This RADAR also confirms the validity of some of FINAT's own strategic initiatives that have been undertaken in recent times, such as our webinar series, keeping FINAT members up to date about developments in adjacent technologies to accommodate market challenges. It is also worth noting that the availability of qualified press operators is now in the top 3 of label converters' most significant business challenges and in this respect I am really looking forward to see our joint FINAT/National Associations Young Talent campaign taking off over the coming months.

I wish you good reading and look forward to see many of you at Labelexpo Europe in Brussels next September!

Chris Ellison
FINAT President

Researched and compiled by LPC, Inc.



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SCOPE OF THE REPORT

Continued growth, increased conventional press purchases and a back-to-basics approach in focusing first and foremost on the printing and converting of self-adhesive substrates will be the theme of 2017 and into the next year according to polled FINAT converters participating in the seventh edition of the FINAT RADAR. In this issue of the report you will find the results from an in-depth survey completed by 60 association converters.

This is the fourth year that association converters have participated in the FINAT RADAR Converter Survey that asks companies about their growth rates, capital equipment purchasing projections and different label production metrics. Since we have been collecting data since 2014, the RADAR is able to present indices across different production metrics in addition to growth rates per end-use category.

As you will see reported in these pages, FINAT converters had another strong year in 2016. The UK/Ireland had the most robust year-over-year growth with converters reporting a 3.4% increase over 2015 average growth rates. In 2016, year-over-year sales increased an average of 8.3% for the total respondent group, matching reported growth in 2015, and profits were up an average of 4.5%. **Highest growth rates were reported in the pharmaceutical, food, health and beauty and beverage sectors while retail, transportation/logistics and office products lagged behind the other end-use categories with lowest reported year-over-year growth.**

Average conventional run size/job size lengths continue to decline in most end-use categories with the average year-over-year decline for all sectors down 11%. Interestingly, converters reported that digital run lengths are actually increasing across many end-use verticals – a result we believe of increased adoption of newest generation, faster UV inkjet and toner-based presses. It will be interesting to track digital run sizes/job lengths moving forward to ascertain if this trend will continue.

One important metric the RADAR once again examined is the current 'breakeven' run size/job length for labels printed on conventional printing presses. 'Breakeven' is defined as the length that a run size needs to be to actually be profitable when printed on a conventional printing press. Anything less than this breakeven run length would be produced at a monetary loss. **Currently, the average breakeven conventional run size/run length for FINAT converters is 1,707 linear meters.**

What does the rest of 2017 hold for FINAT label converters? The answer to that question is continued growth according to the research analysis and purchasing projections indicated by converters. While we are witnessing a slight decline in the rate of projected digital press acquisitions, the projected conventional press purchasing rate was markedly higher. Forty-five percent of participating converters indicated they will purchase a conventional press over the next 12 months, a 17% increase year-over-year. Converter feedback indicated that Central and Southern Europe will be the strongest regions for conventional and digital press sales for the remainder of 2017 and into 2018. Conventional press acquisition rates were also high in the UK/Ireland, however anticipated digital press acquisitions were lower for that region compared to the previous year.

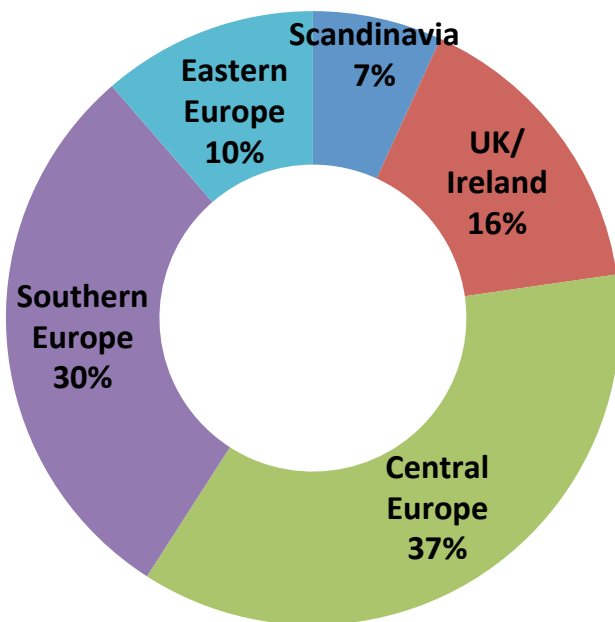
FINAT CONVERTER VIEWPOINT

THE 2017 FINAT CONVERTER SURVEY

The analysis, data and production metrics in this section of the FINAT RADAR has been compiled using feedback from the annual RADAR Converter Survey as a foundation. The annual survey is an extensive questionnaire distributed to association members across every European region, and asks participants a series of questions targeting sales growth, profitability growth, equipment procurement projects, labour and material costs trends. The survey also asks converters to indicate which end-use categories (food labels, beverage labels, pharmaceutical labels, chemical labels, etc.) have delivered the most growth over the past year.

This year's RADAR Converter Survey also asked some new questions. The survey dove into two key benchmark areas for label converters: revenue-per-employee and press downtime rates of conventional presses. These are important production metrics that most label companies track year-over-year. As conventional job sizes continue to contract, conventional press downtime rates rise. This RADAR will continue to gauge this benchmark to report on press downtime and the impact changing job sizes are having on label converters across end-use categories.

Once again, we want to thank all of the FINAT members who filled out the RADAR Converter Survey. The success of the report relies on member participation and the response we have year-over-year serves to demonstrate the ongoing dedication of FINAT's membership.



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:

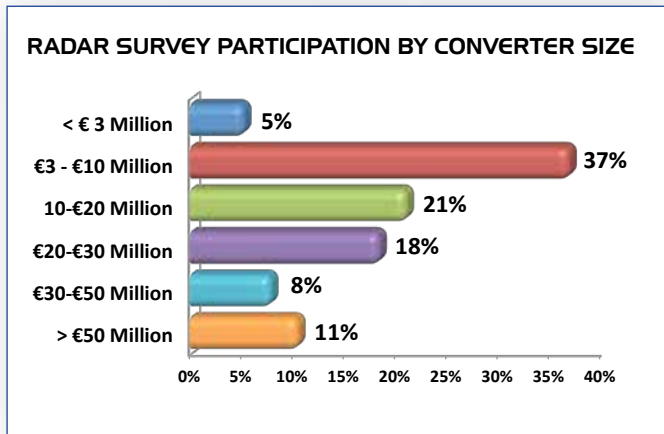
France, Italy, Spain, Portugal, Greece, Turkey and Cyprus

Eastern Europe:

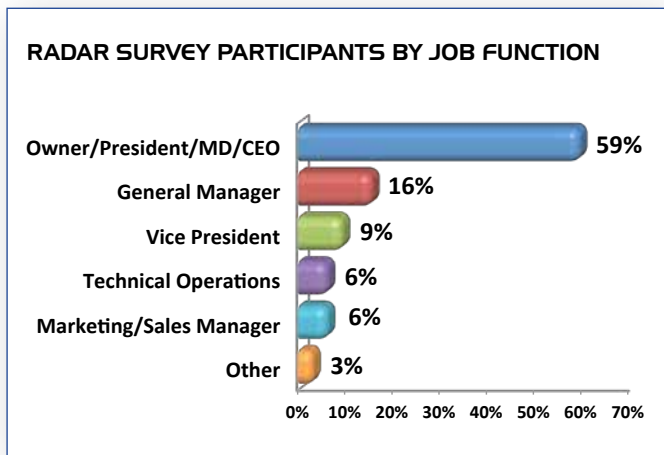
Russia, Poland, Czech Republic, Slovakia, Bulgaria, Hungary, Romania, Ukraine, Belarus, Moldova, Estonia, Latvia, Lithuania, Slovenia, Croatia, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia

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 10% of participating companies have annual revenues of more than € 50 million.

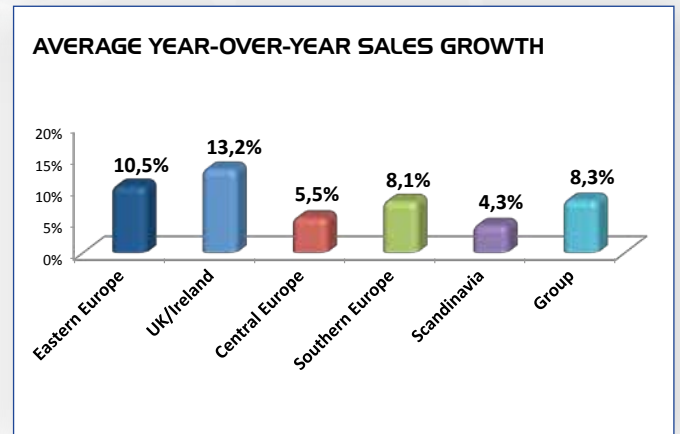


Seventy-five percent of survey participants are company owners and/or General Managers. The chart below breaks down the range of job functions for all respondents who filled out the FINAT Converter Survey.

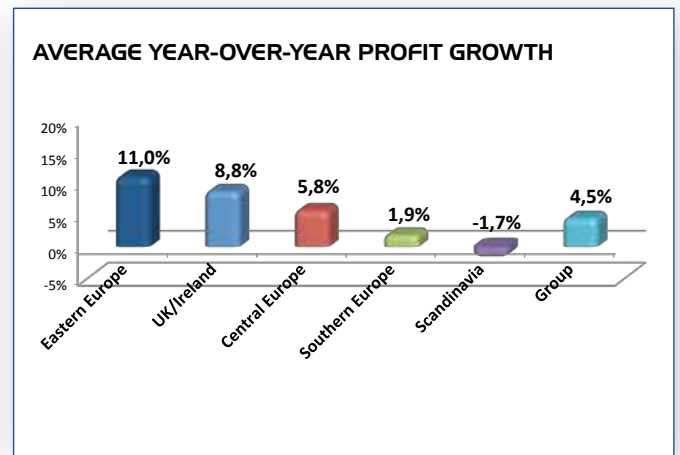


YEAR-OVER-YEAR SALES AND PROFIT GROWTH

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.



Like 2015, regional sales growth rates indicate that 2016 was also a year of continued growth for all regions. Year-over-year growth rates were the most robust in the UK/Ireland and Eastern Europe. The chart below shows average profit growth for converters in 2016 per region.



With the exception of Eastern Europe and Great Britain, year-over-year profitability rates are down in most regions with a rate decrease for the overall group of 2.7%. As wage growth accelerates across Europe, converters' year-over-year profitability levels will be impacted. Sixty-four percent of converters reported an increase in year-over-year profitability rates, 13% reported profitability levels in 2016 were the same as 2015 and 23% of converters reported a decrease in year-over-year profitability.

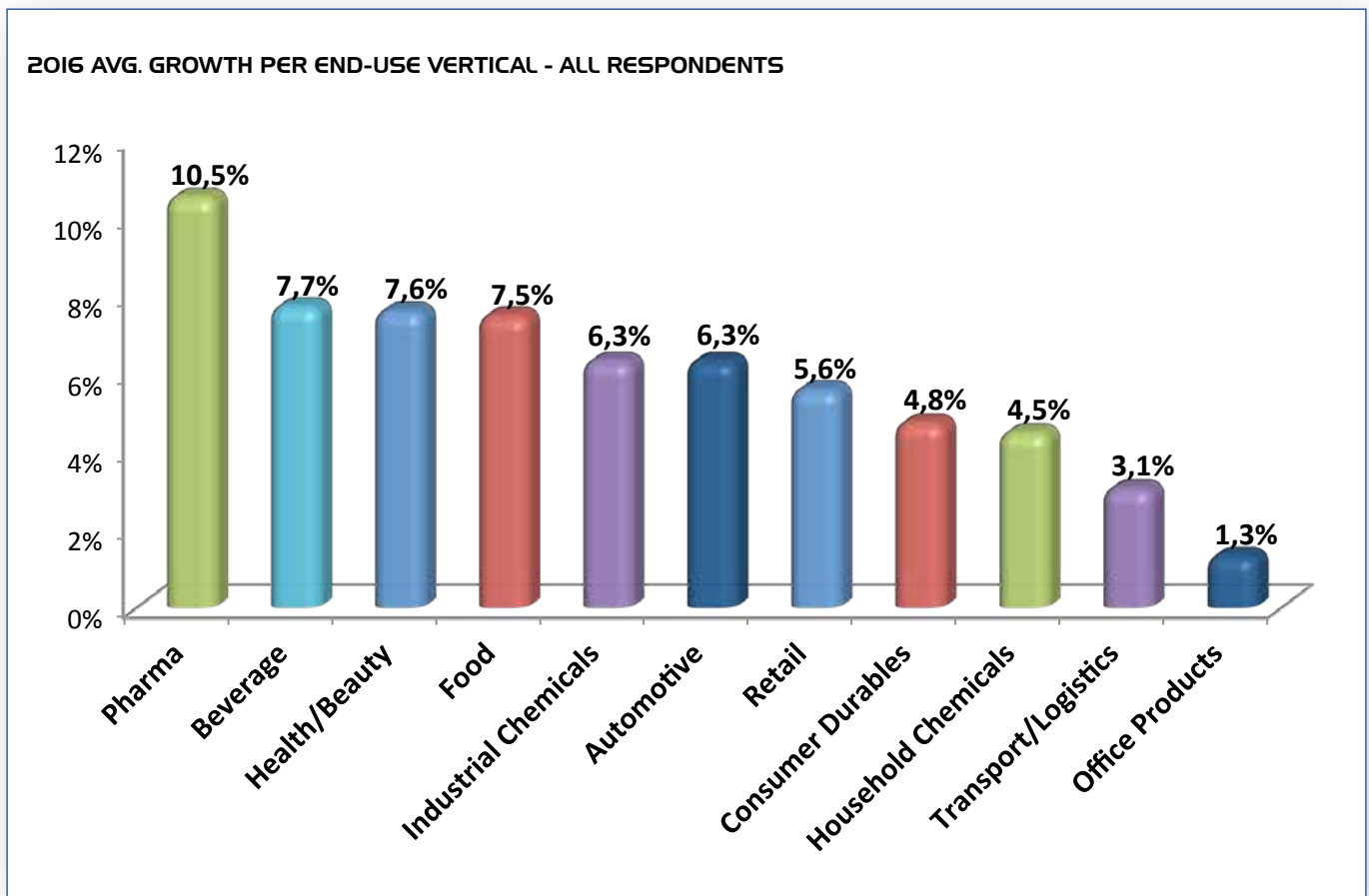
INDEXING CONVERTER SALES GROWTH 2013 - 2016

For the past four 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 below illustrates year-over-year average converter sales growth per region for 2013 – 2016. Converters in Eastern Europe and the UK/Ireland have witnessed highest growth, with the average rate for both regions hovering just below 10%. Scandinavian converters report lowest year-over-year growth, averaging 3.9% year-over-year since 2013.

Sales Growth Averages for European Converters: 2013-2016					
Region	2013	2014	2015	2016	Average 2013-2016
Eastern Europe	7.2%	10.1%	10.5%	10.5%	9.6%
Uk/Ireland	5.3%	9.9%	9.8%	13.2%	9.6%
<i>All Regions</i>	<i>5.7%</i>	<i>6.7%</i>	<i>8.4%</i>	<i>8.3%</i>	<i>7.3%</i>
Central Europe	5.2%	4.0%	9.5%	5.5%	6.1%
Southern Europe	4.5%	5.7%	7.6%	8.1%	6.5%
Scandinavia	4.2%	8.5%	-1.3%	4.3%	3.9%

Source: LPC, Inc. FINAT RADAR
**Data taken from FINAT converters*



GROWTH PER END-USE CATEGORY

As in previous converter surveys, the 2017 FINAT RADAR Converter 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 on the previous page shows average converter growth per end-use category for 2016.

Strongest growth for converters in 2016 came from the pharmaceutical, beverage, health & beauty and food categories with pharmaceutical label sales topping the group with a robust 10.5% average sales growth for converters printing and converting products sold into that category.

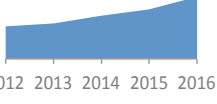
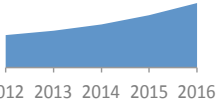
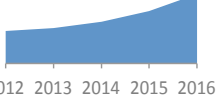
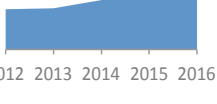
As reported in the previous Converter Edition of the RADAR, world demand for pharmaceutical packaging products is projected to increase 6.5-7% annually to more than €100 billion by 2020. Demand for pharmaceutical products in Europe will remain high due to increased product introductions, an ageing population,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

The largest spike in end-use category label sales was also in the pharmaceutical category with 2016 growth 4% higher than converters reported last year. Year-over-year performance in the beverage category was also markedly higher, with converters reporting a 3.8% averaged increase above 2015 growth.

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 on this page indicates CAGR per end-use category from 2013 - 2016.

Converter Growth Rates per End-Use Category: CAGR 2013-2016		
Category	Indexed Growth Curve	CAGR 2013-2016
Food		5.48%
Beverage		4.59%
Health/Beauty		4.98%
Pharma		5.72%
Household Chemicals		3.95%
Retail		2.68%
Automotive		3.31%
Consumer Durables/Electronics		2.80%
Office Products		0.72%
Transportation/Logistics		2.26%

Source: LPC, Inc. FINAT RADAR
*Data taken from FINAT converters

**CONVERTER RUN SIZES PER END-USE SECTOR:
CONVENTIONAL AND DIGITAL LABELS**

As reported in the results from previous RADAR Converter Surveys, a trend that continues to have a major impact on the global labelling sector is the steady decline in average conventional run sizes. Converters that serve every end-use category report that average run size/job size lengths for conventional applications are still in decline and that this is a persistent reality on their production floors.

The 2017 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 third 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.

Conventional run sizes are highest in the food and beverage sectors however once again both categories witnessed job size contraction according to converter data over the past year. Since

job size data has become a standard feature of the RADAR Converter Survey, we are able to compare the results and calculate year-over-year change per end-use category. The table on the next page shows the percentage change from the last survey's results, both for conventional and digital run sizes per category.

Conventional run sizes were down year-over-year 11%, however we see a marked shift in the digital data. The overall digital job size average actually increased year-over-year by 7%. Sharpest conventional run size declines were in the food, health and beauty and retail sectors. For digital job sizes, the most significant run size increases were in the office products, automotive and consumer durables sectors.

We believe that one of the drivers for year-over-year job size gains in the digital sector is the installation growth, and increased speeds, of inkjet presses. The RADAR will continue to gauge average conventional and digital run size rates moving forward. In addition to average job size volumes the recent Converter Survey asked companies to indicate their 'breakeven' run lengths – the length a run size/job size needs to be to actually be profitable on a conventional printing press. The average breakeven run size for converters in 2016 was 1,707 linear meters.

Average FINAT Converter Run Lengths 2016: Conventional and Digital		
End-Use Category	Average CONVENTIONAL Run Length in Linear Meters	Average DIGITAL Run Length in Linear Meters
Food	5,386 l/m	1,230 l/m
Beverage	8,117 l/m	1,329 l/m
Health & Beauty/Cosmetics	3,338 l/m	919 l/m
Pharmaceuticals	2,136 l/m	606 l/m
Household Chemicals	6,563 l/m	710 l/m
Industrial Chemicals	2,925 l/m	875 l/m
Retail	4,393 l/m	988 l/m
Automotive	4,875 l/m	388 l/m
Consumer Durables (includes electronics)	1,860 l/m	488l/m
Office Products	N/A	483 l/m
Transport/Logistics	6,393 l/m	1,013 l/m
All Categories	4,598 l/m	821 l/m
Source: LPC, Inc. FINAT RADAR <i>*Data taken from FINAT converters located in every major European region</i>		

Average FINAT Converter Run Lengths 2016 vs. 2015: 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	▼ 38%	▼ 3%
Beverage	▼ 4%	▼ 32%
Health & Beauty/Cosmetics	▼ 33%	▲ 28%
Pharmaceuticals	▼ 2%	▲ 27%
Household Chemicals	▲ 5%	▲ 29%
Industrial Chemicals	▼ 15%	▲ 8%
Retail	▼ 26%	▲ 22%
Automotive	▲ 53%	▲ 48%
Consumer Durables (includes electronics)	▼ 12%	▲ 37%
Office Products	▲ N/A	▲ 81%
Transport/Logistics	▼ 2%	▲ 10%
All Categories	▼ 11%	▲ 7%

Source: LPC, Inc. FINAT RADAR

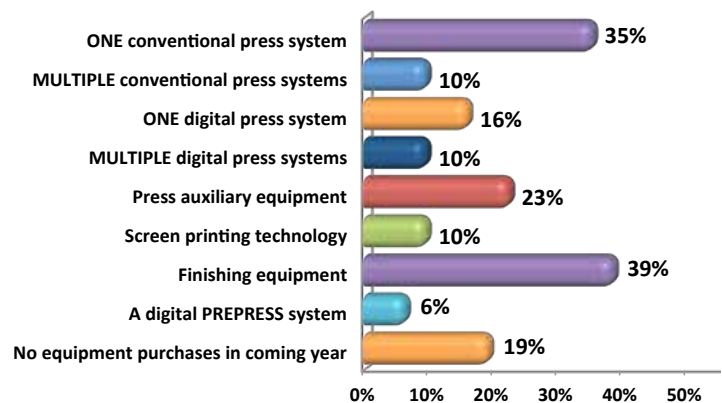
**Data taken from FINAT converters located in every major European region*

FINAT CONVERTERS' CAPITAL EQUIPMENT PROCUREMENT PROJECTIONS: 2017

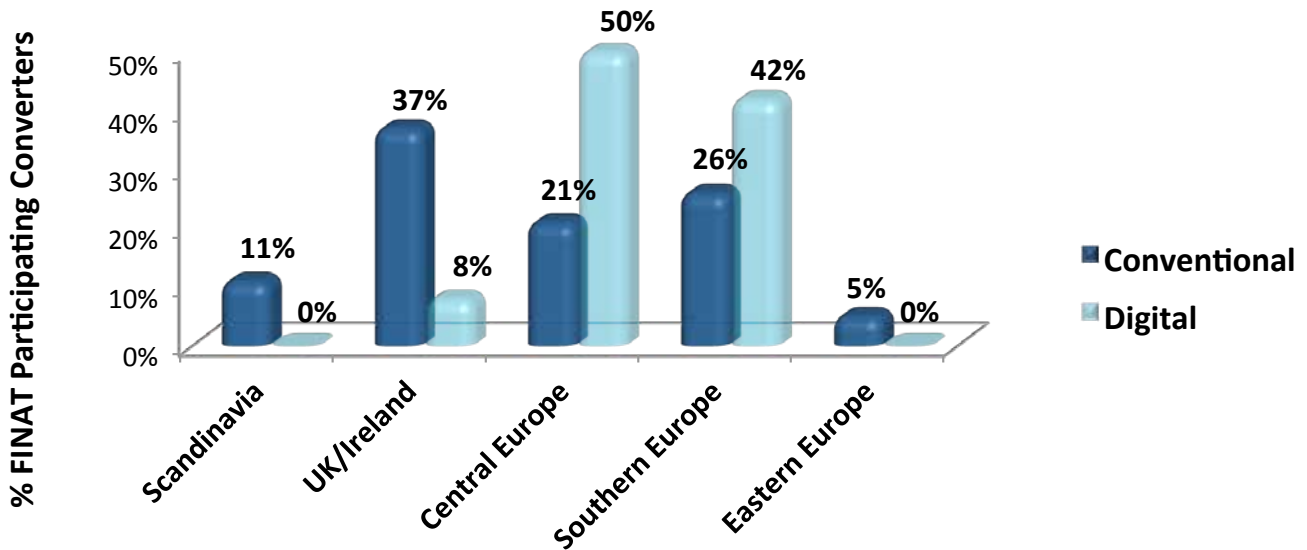
The next question in the Converter Survey asked FINAT European converters to indicate what types of capital equipment investments their companies are planning on making over the course of the next six months. Companies were given the following options to choose from and directed to select all those that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

- My company is planning on purchasing ONE conventional (non-digital) printing press within the next six months
- My company is planning on purchasing MULTIPLE conventional (non-digital) printing presses within the next six months
- My company is planning on purchasing ONE digital press system within the next six months
- My company is planning on purchasing MULTIPLE digital press systems within the next six months
- My company is planning on purchasing press auxiliary equipment within the next six months (turret rewinder, butt splicer, video inspection system, etc.)
- My company is planning on purchasing screen printing technology within the next six months
- My company is planning on purchasing finishing equipment within the next six 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

WHAT ARE FINAT CONVERTERS BUYING IN THE COMING YEAR?



WHERE WILL NEW PRESS SALES OCCUR?



Interestingly, the pace of projected press acquisitions has increased for converters in the coming year. However we see a slight decline in projected digital press acquisition rates with 26% of participating companies indicating they would purchase a digital press, compared to 31% indicating the same one year ago. Projected conventional press purchasing rates are markedly higher with 45% of participating converters indicating they will purchase a conventional press over the next 12 months, a 17% increase year-over-year.

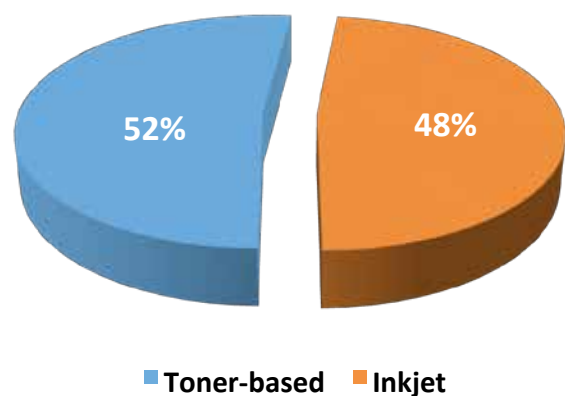
For those companies indicating they will purchase a new conventional or digital press over the next 12 months, the graph below breaks down the specific regions those companies are located in.

Converter feedback indicates that Central and Southern Europe will be the strongest regions for both conventional and digital press sales over the next year. Conventional press acquisition rates were also high in the UK/Ireland, however anticipated digital press acquisition rates were low in this region.

In last year's FINAT Converter Survey we asked companies to indicate the types of digital platforms they would be purchasing. As the *FINAT Digital Label Market Study* will be published later in the year, a separate survey associated with the research for this study asked converters the types of digital presses they would be purchasing over the next year. Converters were given two formats to choose from: toner-based and inkjet technology. The graph on the right indicates converters' responses and we are pleased to be offering FINAT members a preview of one of the graphs from the digital study.

It's important to note that digital hybrid technology falls under the inkjet category. More than 100 label converters across Europe participated in the survey for the digital label study and this group is made up of both FINAT member and non-member companies. More than half of the surveyed group predict their companies will invest in a toner-based press in the coming year while 48% of respondents indicated they will be purchasing an inkjet press system. The *FINAT Digital Label Market Study* reports on projected growth rates for each major digital format to 2022, in addition to the forces that are driving installation growth for each technology.

WHAT DIGITAL TECHNOLOGIES WILL SURVEYED CONVERTERS IN EUROPE PURCHASE?



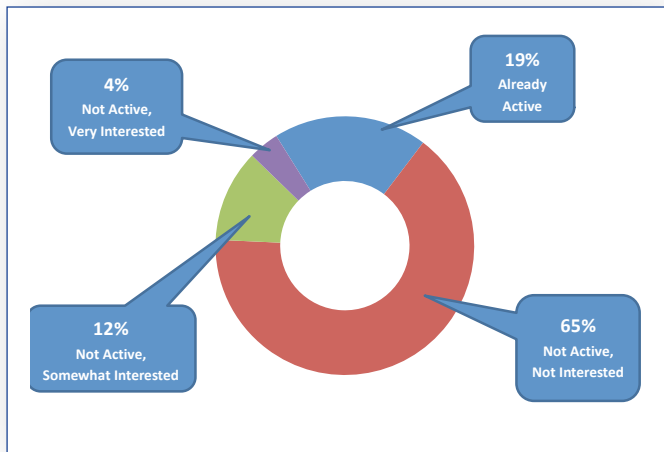
BEYOND SELF-ADHESIVE: IN WHAT OTHER MARKETS ARE CONVERTERS CURRENTLY ACTIVE AND WHAT IS THEIR INTEREST FOR THE FUTURE?

For this edition of the FINAT RADAR, we wanted to once again 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, alternate markets 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

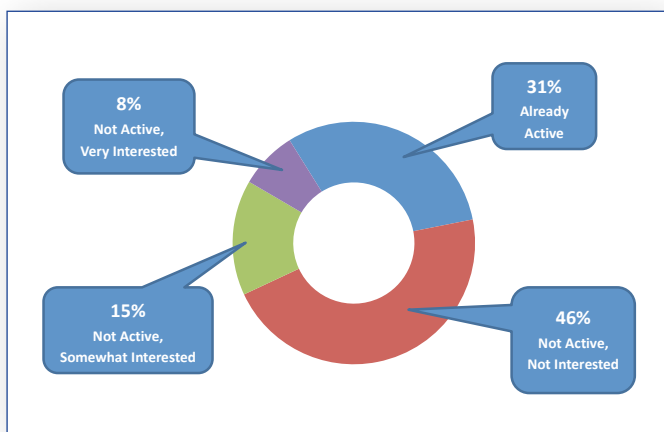
The first market that was explored in this way was the pouch sector and the graphic below indicates converters' responses to this market.

BEYOND SELF-ADHESIVE: CONVERTING POUCHES



The results of the most recent FINAT Converter Survey indicates that converter interest in printing and converting pouches is waning. Only 16% of respondents indicated they are somewhat, or very, interested in printing pouches compared to 29% indicating the same in the 2016 survey. It's important to note however that in this year's survey, 19% of respondents indicate they already print pouches, a 3% year-over-year increase.

BEYOND SELF-ADHESIVE: CONVERTING SLEEVES (SHRINK AND/OR NON-SHRINK)

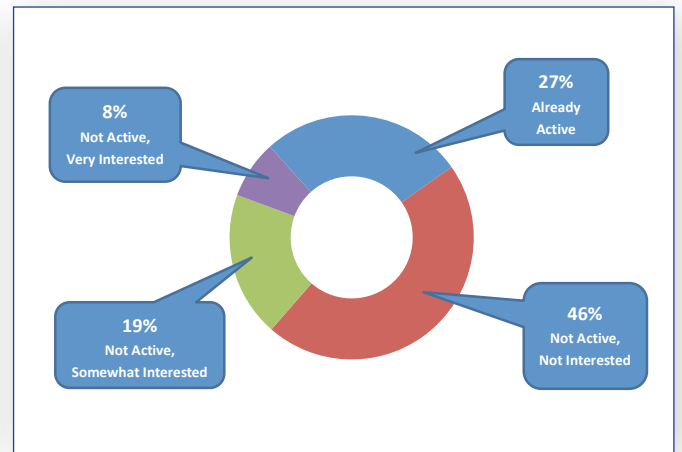


Interest among converters to pursue the sleeve market continues to wane. In last year's survey, 17% of converters indicated they are 'not active and very interested' in entering the sleeve label space. In this most recent survey and as the graph above shows, less than half that percentage – just 8% of participants – indicated the same.

The diminishing interest in entering the sleeve market is indicated further as 46% of converters cited they are 'not active and not interested' in printing sleeves, a 17% increase compared to last year's survey. In the past, we have reported on data showing a stabilization in the European sleeve market and this year's RADAR survey results reinforce this analysis.

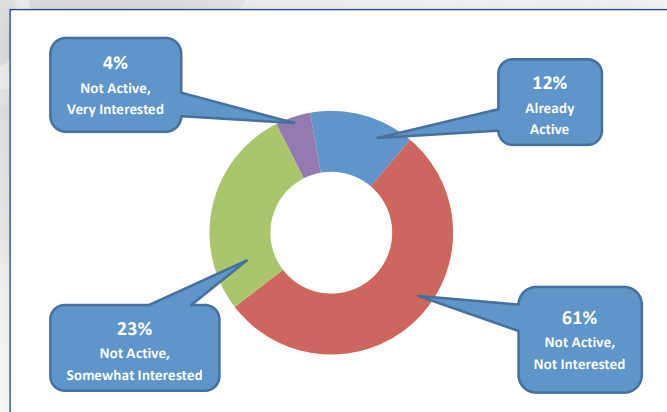
BEYOND SELF-ADHESIVE: CONVERTING FLEXIBLE PACKAGING APPLICATIONS (OTHER THAN POUCHES AND SLEEVES)

As discussed in past editions of the FINAT RADAR, out of all the printed packaging sectors the flexible packaging industry is the



most impacted by run size contractions. The flexible packaging space is still considered an 'opportunity area' for label converters given continued run size shifts in addition to the ability of narrow web conventional press technology to handle the unique properties of running unsupported, thinner films. This year's survey indicated an increase in the number of companies entering the flexible packaging space as 27% of companies cited they are already active and printing/converting flexible packaging applications, a 14% increase over last year's survey. Interest however in entering the space however has decreased with 27% of converters indicating they are 'somewhat or very interested' in converting flexible packaging applications compared to nearly twice as many companies (52%) indicating the same in the 2016 survey.

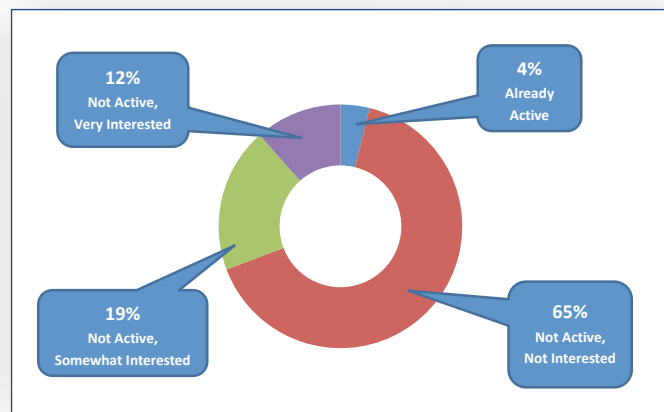
BEYOND SELF-ADHESIVE: CONVERTING IN-MOULD APPLICATIONS



There has been a marked decrease in the percentage of label converters showing an interest in entering the in-mould label space. In 2016 43% of companies indicated they were 'somewhat or very interested' in entering the market. In the most recent converter survey, 27% of companies indicated the same, a 16% decrease year-over-year. In the 2017 survey, 61% of participating converters indicated they are 'not active and not interested' in entering the in-mould label space, a 13% increase compared to the 2016 survey.

Interestingly, we have witnessed a decline in interest across labelling formats, when it comes to converters exploring areas of interest beyond self-adhesive labels.

BEYOND SELF-ADHESIVE: CONVERTING FOLDING CARTON APPLICATIONS



Out of all the 'Beyond Self-Adhesive' application sectors researched, the sharpest increases in interest were demonstrated in the folding carton market. In this year's survey, 31% of converters indicated they are 'somewhat or very interested' in producing folding cartons, a 10% increase compared to the 2016 survey. At Labelexpo in 2015, nearly one-third of exhibitors featured products dedicated to the printing and/or converting of folding cartons. It will be interesting to gauge the increase, or decrease, of that percentage at this year's exposition and to compare and contrast the year-over-year gains this sector has made as reflected in the 2017 RADAR survey.

Section 2

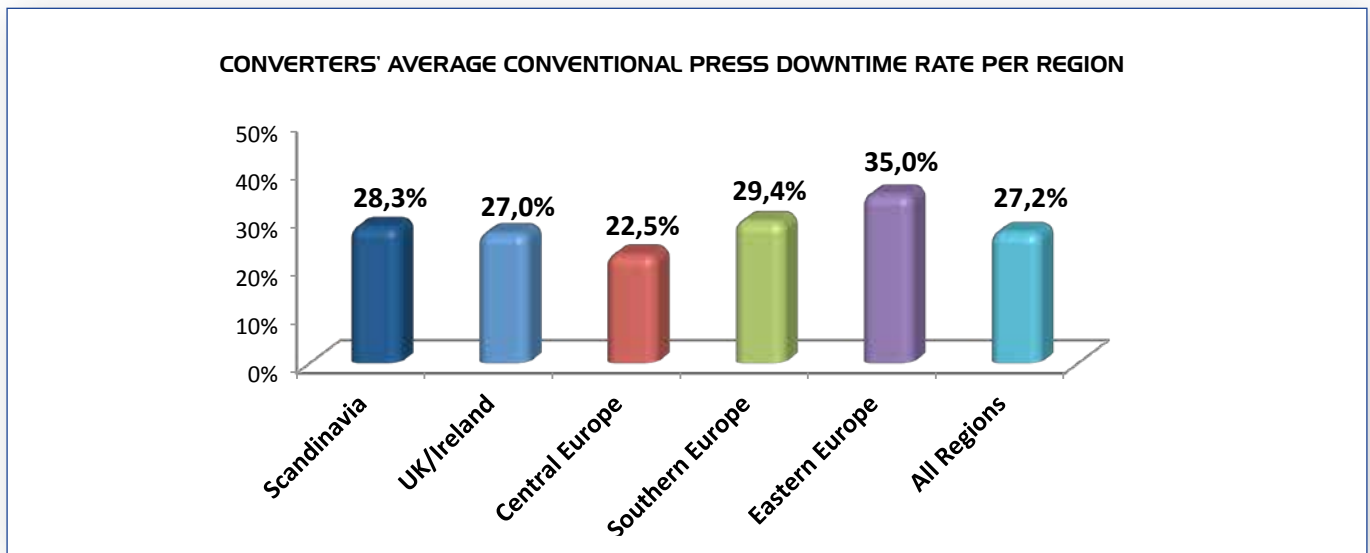
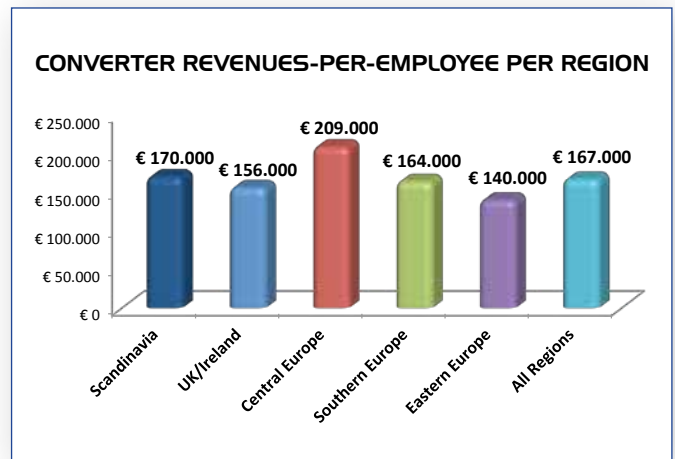
BENCHMARKING METRICS A LOOK AT CONVERTERS' CURRENT PRODUCTION AND OPERATIONAL TRENDS

Starting in June 2015, the spring edition of the FINAT RADAR each year will have a special section that reports on specific questions and analyses 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 revenues-per-employee. This was defined as calculated by taking a company's total sales revenues and dividing it by the total number of employees (or full-time equivalents). The chart below breaks down revenues-per-employee data for the entire group, per major region.

The data shows some marked differences between regions. Highest revenues-per-employee averages were found in Central Europe at € 209,000 per employee and the lowest average was found in Eastern Europe at € 140,000 per employee. The average revenues-per-employee number for the entire group was € 167,000.

The next converter production benchmarking question asked companies to indicate their average downtime/idle rates for the conventional presses on their production floors. This is an important benchmark metric that the FINAT RADAR will continue to watch as average conventional job sizes/run lengths continue to decline and conventional presses are down more and more due to increasing volumes of job set-up and changeovers. The chart below indicates average conventional press downtime rates per region.



Central Europe has the lowest press downtime rates at 22.5% while Eastern Europe tops the regional listing with average press downtime rates of 35%. The overall press downtime rate for the group was 27.2%.

Moving forward the FINAT RADAR will also take a close look at digital press downtime rates so that converter members can compare and contrast these rates against conventional presses, in addition to examining the differences in downtime rates between digital formats – toner-based press systems and inkjet press systems.

The final question in the FINAT RADAR Converter Survey asked companies to define what they consider to be the most significant 'pain points' their businesses have faced in the past year. These are the greatest day-to-day challenges they endure in running and managing their businesses, and the factors that can have the greatest impact on growth and success.

For this question, converters were asked to rank from 1-8 a set of criteria with 1 being what they consider to be their most significant pain point, and 8 their least significant. The table below ranks these criteria according to converter feedback.

Pricing reduction pressures were the greatest single challenge converters faced over the course of the past year. Interestingly, shorter lead times was ranked the second most significant challenge, reinforcing continued digital press adoption growth, as well as the need to continue to track average downtime rates for both conventional and digital press systems. Also apparent from converters responses is the challenge in finding and recruiting qualified employees – both press operators and non-operator personnel.

Interestingly, lost business to foreign markets has not been a persistent reality for most companies, nor has the issue of accounts payables extending beyond reasonable time frames.

Converter Perspective: Ranked List of Most Significant Business 'Pain Points' (Challenges) over the Past Year	
Pain Point/Challenge	How Converters Ranked the Pain Point/Challenge
Pricing reduction pressures from our customers	#1
Shorter lead times	#2
Finding qualified press operators	#3
Raw material price increases	#4
Recruiting qualified personnel (other than press operators)	#5
Accounts payables extending to unreasonable time frames	#6
Lost business to foreign markets	#7
Access to capital	#8
Source: LPC, Inc. FINAT RADAR <i>*Data taken from FINAT converters located in every major European region</i>	

KEY FINDINGS FROM SURVEYING FINAT CONVERTERS

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

KEY FINDINGS	
<p>8.3%</p> <p><i>Average 2016 sales growth for FINAT converters.</i></p>	<p>For the vast majority of FINAT converters, 2016 was a very good year. Sales revenues increased on average for every region with UK/Ireland delivering highest growth at 13.2% and Scandinavia lowest growth at 4.3%.</p>
<p>11%</p> <p><i>Average decrease in conventional run sizes/run lengths.</i></p>	<p>Conventional run size lengths were down year-over-year by 11%, <u>however digital run size lengths were actually up 7%</u>. Sharpest conventional run size declines were in the food, health & beauty and retail categories.</p>
<p>1,707 l/m</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>26%</p> <p><i>Will buy a digital press over the course of the next 12 months.</i></p>	<p>The most recent FINAT RADAR Converter Survey indicates it will be a robust year for conventional press sales with 45% of surveyed FINAT member converters indicating they would buy one, or more, conventional presses over the next 12 months. Digital press acquisition rates had a slight decline year-over-year.</p>
<p>31%</p> <p><i>% of FINAT converters are 'somewhat' or 'very' interested in moving into folding carton applications.</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 are the most interested in for the future. Highest interest was in the folding carton sector with 31% of converters indicating they were 'very or somewhat interested' in entering this market.</p>
<p>#2 pain point:</p> <p><i>Shorter lead times.</i></p>	<p>After pricing reduction pressures, converters ranked shorter lead times as the most significant day-to-day pain point/challenges their businesses have faced over the past 12 months.</p>
<p>Source: LPC, Inc. FINAT RADAR</p>	

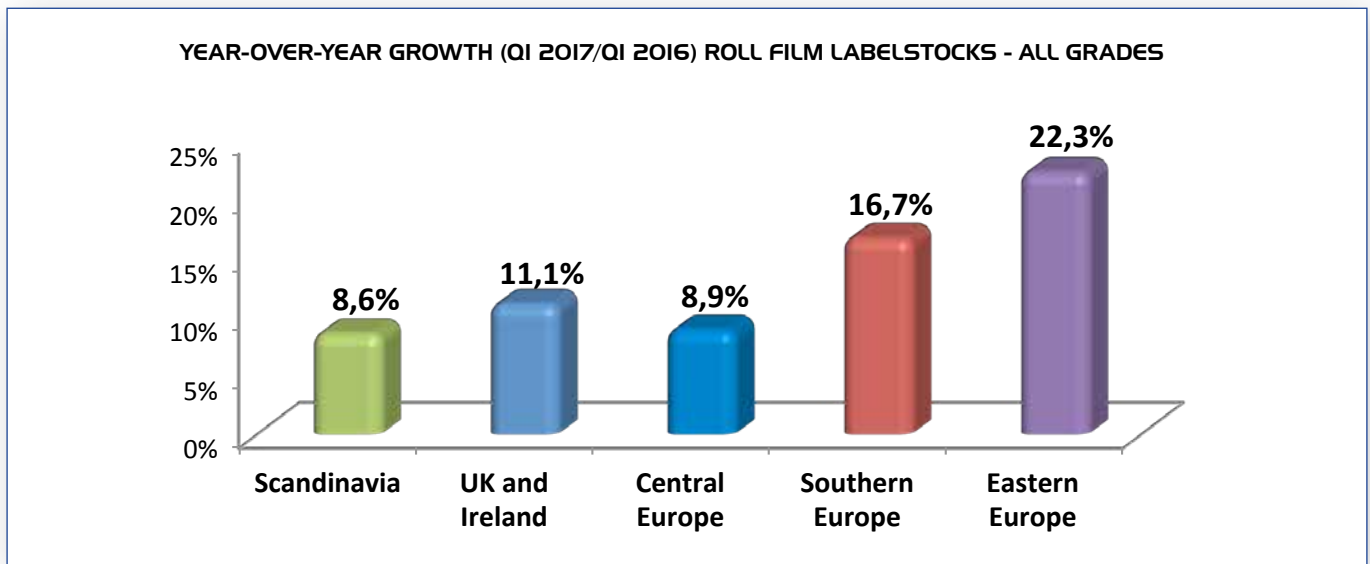
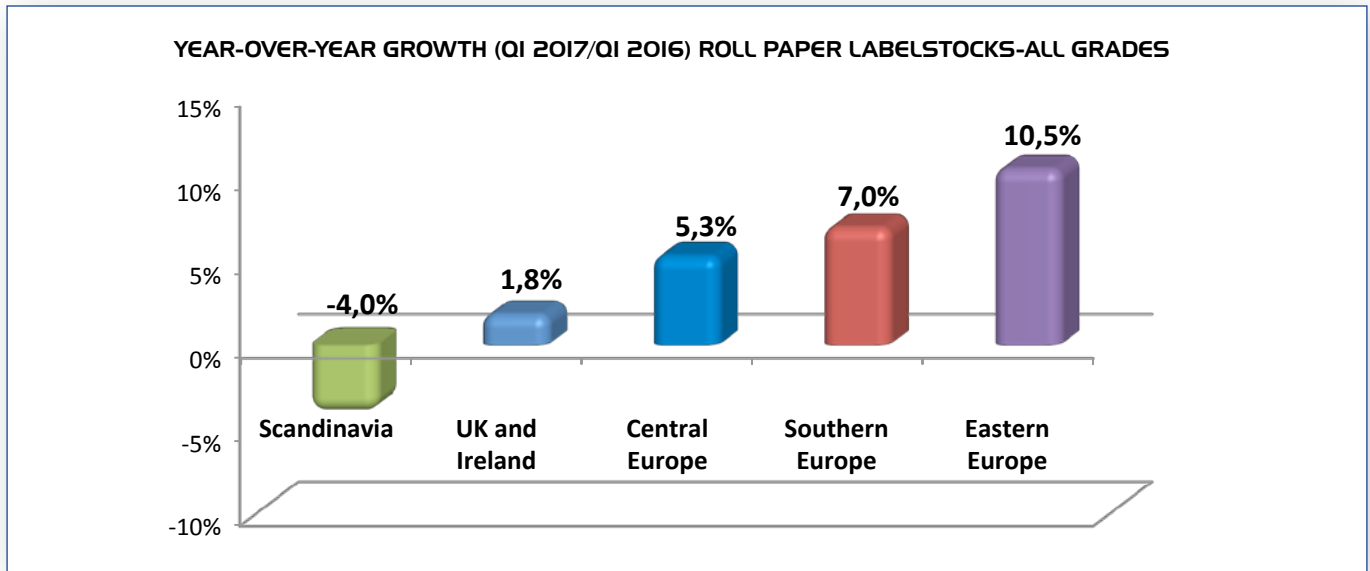
Section 3

LABELSTOCK GROWTH PER EUROPEAN REGION

Year-over-Year Growth Rates for Paper and Film Roll Labelstocks (Q1 2017 / Q1 2016)

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*.

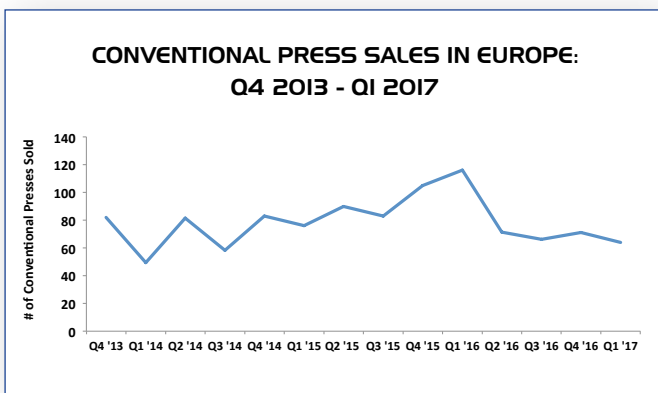
Average year-over-year growth (Q1 2017 compared to Q1 2016) for European paper labelstocks was up 6.1%; while average growth for European film labelstocks sales was up 14%. Both uncoated and coated papers were up year-over-year with uncoated papers up 7.3% and coated papers up 7%. Roll film growth was driven by PP with growth up a robust 18% year-over-year while PE was up 7.6%.



Section 4

EUROPEAN CONVENTIONAL PRESS SALES QUARTER-OVER-QUARTER VOLUME SALES FOR CONVENTIONAL PRESSES: Q4 2016 & Q1 2017

Each issue of the FINAT RADAR has a section that presents conventional 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.



purchasing a conventional press in the coming year and Labelexpo Europe years have historically delivered an upswing in press sales.

The sharpest price point category **increase** was in the sale of conventional presses valued at €1 million-€1.5 million. Press sales at this price point were up 25% in Q4 2016 and Q1 2017 compared to sales in the second and third quarters of 2016. A sharp **decline** in sales occurred in the <€500,000 category with 26% fewer conventional machines sold in Q4 2016 and Q1 2017 compared to reported sales from press manufacturers in the second and third quarters of 2016 at this price point.

European conventional press sales have witnessed a decline from their peak in Q1 2016. Projected sales rates however are projected to remain steady, or increase, over the next two quarters as a high number of participating FINAT converters indicated they would be

In addition to new press sales, conventional press manufacturers are also asked to indicate the number of machine sales that fall within specific price ranges. The graph below breaks down press sales for the fourth quarter of 2016 and the first quarter of 2017 by price point range.

