



By Thais Santi -Special for *O Papel*

EUROPE – CHAPTER 3



This month, we present Chapter 3 of our new series called The Sector Around the World, which was introduced in the August issue of *O Papel* magazine. In this journey through the five continents, and published in the form of five chapters, we have visited North and Latin America and Asia, and now arrive in Europe. Our next stop will be Africa and will then conclude our expedition in January 2017 in Oceania.

Last month, we left Asia's enchanting pulp and paper sector and headed towards our new destination: Europe! We are in a continent composed of 50 countries and territories in an area that totals more than 23 million km². On account of the economic block, its GDP totals US\$ 18.8 trillion. According to the Confederation of European Paper Industries (CEPI*), which represents roughly 510 companies that produce pulp, paper and board throughout Europe and account for 93% of Europe's pulp and paper industry in terms of production, the sector adds €16.5 billion to the European Union's GDP, with revenues of €79 billion, being extremely strong in the export markets. Additionally, this industry is responsible for 179 thousand direct jobs in the region and generates 1.5 million jobs throughout its production chain.

According to data from the United Nations' Food and Agriculture Organization (FAO), Europe's forest area comprises 1,015 million hectares, of which 83 million hectares are planted forests. In 2015, CEPI reported that 36.3 million tons of market pulp and integrated pulp were produced. This figure represents 20.5% of global pulp production in the world. The two main producers in the European continent, which together account for 60% of total production, are Sweden with 32% and Finland with 28.4%. **(See CEPI's complete graph of raw materials for paper at digital magazine edition)**

Paper and board production in Europe totaled 90.9 million tons, or 22.4% of total worldwide last year, with production well disseminated among countries in the block. The top three producers are Germany (24.9%), Finland (11.4%) and Sweden



(11.2%). The ranking of other producers, according to their pulp, virgin pulp and paper + board production capacity, is provided in the table presented herein.

According to Manoel Neves, Economic Studies manager at consultancy Pöyry, and contributor to The Sector around the World series, Europe is responsible for 25% of global pulp production for producing paper, with relevant importance in the international market not only for its significant production capacity, but also its participation in paper importing and exporting.

To have an idea, Neves informs that 66% of paper production and 36% of pulp production for producing paper (virgin fiber, recycled fiber + non-wood fiber) was exported in 2014. At the same time, 55% of paper production and 31% of pulp production for producing paper was imported that same year.

In terms of market growth over the next years, the executive points out that a small drop overall in Europe is expected in consumption, especially, due to the substitution of graphic paper for electronic media. "The high rates of recovery indicate that growth in the wastepaper volume available is close to the limit," said Neves.

An increase is also expected in packaging paper consumption, which should increase consumption of unbleached kraft pulp (UKP). "The utilization of wood for new plants to produce energy or biomaterials may compete with pulp production," said the Pöyry executive.

The three main producers in the European market are Stora Enso, UPM and Smurfit Kappa, with extremely significant production volumes. **(See details about these companies in the "Top 3 - Europe" box, as well as capacity expansion projects in the region for all segments through 2020)**

TOP 3 – Europe Paper and Board + Market Pulp Producers

	Stora Enso (Annual Report 2015)	UPM (Annual Report 2015)	Smurfit Kappa (Annual Report 2015)
Company description	Founded in 1998 after the merger between Enso Oyj of Finland and Swedish Stora Kopparbergs of Sweden, Stora Enso is today one of the leading suppliers worldwide of renewable products for packaging, biomaterials, wood products and paper	UPM comprises forest and biorefinery industries, to build a sustainable future with recyclable materials produced from renewable raw materials	Smurfit Kappa was founded in 2005 after the merger between Irish group Jefferson Smurfit and Kappa Packaging of Holland, and today is the European leader and one of the global leaders in the paper packaging segment
Products	Pulp, paper, board and product conversion	Pulp, paper, biofuels, wood products, energy, self-adhesive labels, forest management.	Paper, containerboard, cartonboard, paper bags and other types of packaging.
Production	12 million tons considering all products	3.5 million tons of pulp, 11 million tons of paper, 120 million liters of biofuel, and 1,480MW of energy	6 million tons of paper, 6 million tons of boxes, 1 million tons of cartonboard, 50 thousand tons of paper bags and 26 thousand tons of other types of packaging
Forest base / raw material	Possesses 450 thousand hectares of planted forests on land owned in Uruguay, Brazil and Estonia, and manages another 517 thousand hectares in Uruguay, Brazil, Russia, China and Laos from where 100% of its raw material comes from	Possesses approximately 1 million hectares of planted forests on land owned in Finland, United States and Uruguay, and manages another 960 thousand hectares from where 100% of its raw material comes from	75% of raw material used comes from recovered fiber, the rest comes from the 103 thousand hectares of planted forests on land owned in Colombia, Venezuela, Spain and France
Global presence (plants)	11 countries	13 countries	34 countries
Production units	43	58	370
Employees	15,285	19,600	45,000

Source: Pöyry (April/2016)



Sweden

Sweden is the world's third biggest exporter of pulp, paper and sawn wood, with Kr\$ 127 billion in 2015, whereby 80% of its production is exported. In volume, this represents 11.6 million tons of pulp (3.9 million tons of market pulp), 10.2 million tons of paper and 18.1 million m³ of sawn wood. The forest industry in the region directly employs 70,000 people and another 30,000 indirectly. (Data: *The Swedish Forest Industries*)

Finland

The forest industry is the main source of income for many regions in Finland. At present, the country has 48 paper, board and pulp mills in operation and roughly 130 industrial sawmills, as well as wood-based panel plants and other companies in the industry, employing roughly 150 thousand people directly and indirectly. Not only does the sector add income and development to rural areas, it also represents one-fifth of the country's export revenues. (Data: *Finnish Forest Industries*)

Russia

The forest industry is an important sector for Russia's economy. More than 60 thousand private companies employ roughly 1 million people. The country has 82 billion m³ of forest, representing 25% of global wood stock. The industry's contribution to Russia's GDP increased from 0.2% to 1.22% in 2015 due to the domestic currency devaluation, which increased the income of exporters. This same year, Russia's pulp and paper industry reduced its production by 6.3%. Paper production dropped to 4.95 million tons (1.7% drop), newsprint to 1.51 million tons (7.6% drop), board to 3.1 million tons (0.1% drop) and paper to 562.2 million pieces (3.7% drop). In turn, pulp production grew 4.4%, totaling 7.87 million tons. (Data: *Export.gov - The International Trade Administration (ITA), U.S. Department of Commerce*)

Production Capacity in Europe - Paper & Paperboard - 2016

Rank	Country	Capacity 1,000 t/y	%
1	Germany	24629	21
2	Finland	12356	11
3	Sweden	11432	10
4	Italy	10114	9
5	Russia	9741	8
6	France	8672	7
7	Spain	6912	6
8	Austria	5203	4
9	Poland	4359	4
10	England	4196	4
	Subtotal:	97614	84
	Others:	19109	16
	Total:	116723	100

Source: Pöyry

Production Capacity in Europe – Market Pulp – 2016

Rank	Country	Capacity 1,000 t/y	%
1	Sweden	4539	23
2	Finland	4530	23
3	Russia	3200	16
4	Portugal	1410	7
5	Germany	1250	6
6	Spain	1144	6
7	France	1063	5
8	Austria	561	3
9	Norway	430	2
10	Czech Republic	260	1
	Subtotal:	18387	95
	Others:	1054	5
	Total:	19441	100

Source: Pöyry



Production Capacity in Europe – Total Pulp - 2016

Rank	Country	Capacidade 1000 t/a	%
1	Sweden	14593	21
2	Finland	13065	19
3	Russia	9911	14
4	Germany	7990	12
5	France	3277	5
6	Austria	3026	4
7	Portugal	2730	4
8	Spain	2534	4
9	England	1854	3
10	Norway	1640	2
	Subtotal:	60620	88
	Others:	8262	12
	Total:	68882	100

Source: Pöyry

**Capacity expansion projects
in Europe (through 2020)**

Company	Country	Segment
Volga	Russia	P&W
Arjowiggins	France	P&W
Steinbeis	Germany	P&W
Metsä Board	Sweden	Cartonboard
Kotkamills Oy	Finland	Cartonboard
Bellesbumprom	Belarus	Cartonboard
Stora Enso	Finland	Containerboard
Heinzl	Austria	Containerboard
Sukhonsky Pulp and Paper Mill	Russia	Containerboard
SCA (Ostrand)	Sweden	Pulp
Metsä Fibre	Finland	Pulp
Heinzl Pols	Austria	Pulp

Source: RISI

General Overview:

EUROPE (60 COUNTRIES AND TERRITORIES)

Forest area: 1,015 million hectares

Planted forests: 83 million hectares

Source: FAO, 2015

Total Paper Production: 103,070 thousand tons/y

Total Pulp Production: 105,266 thousand tons/y

Virgin Fiber Pulp Production: 43,680 thousand tons/y

Source: Pöyry, 2014



Note: CEPI comprises members of national associations from 18 of the following countries: Austria, Belgium, Eslováquia, Slovenia, Spain, Sweden, Czech Republic, Finland, France, Germany, Hungary, Italy, Holland, Norway, Poland, Portugal, and United Kingdom.

Note: RISI, the top provider of information about the pulp and paper market, and contributor to O Papel magazine's The Sector around the World series, offers reports, databases and studies with detailed information about these projects, which can be accessed at <http://www.risiinfo.com/>

