Key Statistics **2024**

European pulp & paper industry



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Introduction

Welcome to the latest issue of Cepi's Key Statistics. This booklet contains the key statistics necessary to give a clear picture of the performance of the European pulp and paper industry in 2024.

The statistics included in this booklet are a compilation of data received from the National Associations which are Cepi members, under the auspices of Cepi's Statistics Network. Some additional sources, such as Eurostat, have been used where necessary and relevant.

Extra statistical information is accessible online to members on Cepi's Library at https://library.cepi.org/ and to non-members by subscription[1].

The Confederation of European Paper Industries (Cepi) is a Brussels-based non-profit making organisation founded in 1992, which represents the European pulp and paper industry towards the European Institutions. Through its member associations, Cepi also represents approximately 470 pulp, paper and board producing companies across Europe, ranging from small and medium-sized enterprises to multinationals (counting companies with a presence in more than one Cepi country only once). It represents 90% of the European[2] pulp and paper industry in terms of production. The pulp and paper industry provides 174 000 jobs in Europe directly. It has a turnover of 95 billion euros and adds 21 billion euros to the EU GDP. It is strong in export markets, with an export rate of 20% of its paper and board production.

Since the 1st January 2024, EVICHE, the Union of Greek Paper Mills, is member of Cepi. Historic data included in this report has been updated to include figures from the Greek paper and board industry.

Tissue Paper: as of 1 January 2025, the paper category "Sanitary and Household" becomes "Tissue Paper", resulting from a joint Cepi and European Tissue Symposium (ETS) decision to ensure a more consistent and accurate approach to data collection and sector recognition.

Circular Economy in the European Pulp and Paper Industry

The European Pulp and Paper industry plays a big role in the circular economy. This icon highlights the many areas that are circular in our sector. More information on circular economy can be found on Cepi's website. https://www.cepi.org/policy-area/sustainability-circularity/

Members of Cepi in 2024

The National Associations of the 19 following countries are Cepi members: Austria, Belgium, Czech Republic, Finland, France, Germany, Greece, Hungary, Italy, The Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and United Kingdom.

Data quality and compliance with EU competition rules

Responsibility for the collection and management of statistical data lies with the Cepi statistics department, which is constantly working to improve the quality of the data reported. In order to further increase the reliability and credibility of the data reported, Cepi has commissioned Deloitte to issue a limited assurance statement on the data quality rating that Cepi carried out on its core indicators in the statistics report. The limited assurance statement is available at http://www.Cepi.org/statistics
The compliance of the data produced with the EU competition rules is periodically checked by a law firm.

[1] **More statistics reports (annual, quarterly and monthly) are available by subscription:**

- Please visit our website https://www.cepi.org/statistics-order-form/
- Or contact Ariane Crèvecoeur – a.crevecoeur@cepi.org or Enzo Berdos – e.berdos@cepi.org

[2] Europe minus the Russian Federation

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Cepi Pulp and Paper Industry

	1991	2000	2010	2020	2023	2024	% Change 2024/2023	% Change 2024/2020
Industry Structure								
Number of Companies[1]	1 098	995	742	694	**665**	**653**	**-1.8**	**-5.9**
Number of Mills	1 586	1 325	1 008	904	**859**	**842**	**-2.0**	**-6.9**
Pulp	296	233	172	152	**136**	**129**	**-5.1**	**-15.1**
Paper and Board	1 290	1 092	836	752	**723**	**713**	**-1.4**	**-5.2**
Number of Paper Machines	2 200	1 876	1 411	1 253	**1 180**	**1 157**	**-1.9**	**-7.7**
Employment	416 613	284 487	196 364	183 911	**176 609**	**174 041**	**-1.5**	**-5.4**
Turnover[2] (Million Euros)	n.a.	79 556	75 976	81 546	**96 617**	**95 000**	**-1.7**	**16.5**
Investments[2] (Million Euros)	n.a.	5 653	2 916	4 713	**5 250**	**4 500**	**-14.3**	**-4.5**
Added Value[2] (Million Euros)	n.a.	24 552	16 610	17 910	**22 000**	**21 000**	**-4.5**	**17.3**
Total Pulp[3] ('000 Tonnes)								
Production Capacity	39 584	43 842	44 189	43 324	**40 025**	**40 613**	**1.5**	**-6.3**
Operating Rate	85.5%	91.2%	87.6%	83.2%	**81.4%**	**82.9%**	**1.5**	**-0.4**
Production	33 842	39 969	38 695	36 049	**32 581**	**33 658**	**3.3**	**-6.6**
Cepi Internal Deliveries	n.a.	39 231	37 045	33 899	**27 639**	**29 498**	**6.7**	**-13.0**
Consumption[7] (Apparent)	38 019	46 490	43 905	37 838	**31 830**	**35 447**	**11.4**	**-6.3**
Market Pulp ('000 Tonnes)								
Production	9 314	11 423	12 706	15 321	**14 855**	**14 708**	**-1.0**	**-4.0**
Exports to Outside Cepi	n.a.	1 332	2 567	6 532	**7 398**	**6 379**	**-13.8**	**-2.3**
Imports from Outside Cepi	n.a.	7 992	7 777	8 321	**6 646**	**8 168**	**22.9**	**-1.8**
Trade Balance with Outside Cepi	n.a.	-6 660	-5 210	-1 789	**751**	**-1 789**	**338.2**	**0.0**
Consumption[7] (Apparent)	14 332	18 083	17 916	17 110	**14 104**	**16 497**	**17.0**	**-3.6**
Exports/Production	n.a.	11.7%	20.2%	42.6%	**49.8%**	**43.4%**	**-6.4**	**1.7**
Imports/Consumption	n.a.	44.2%	43.4%	48.6%	**47.1%**	**49.5%**	**2.4**	**1.8**
Paper and Board ('000 Tonnes)								
Production Capacity	73 557	98 027	104 119	101 008	**96 685**	**97 032**	**0.4**	**-3.9**
Operating Rate	88.9%	93.1%	91.8%	84.9%	**76.9%**	**81.2%**	**4.2**	**-4.4**
Production	65 356	91 228	95 565	85 739	**74 374**	**78 742**	**5.9**	**-8.2**
Cepi Internal Deliveries	n.a.	79 169	80 523	73 247	**65 645**	**68 355**	**4.1**	**-6.7**
Exports to Outside Cepi	n.a.	13 919	19 231	19 474	**15 080**	**15 780**	**4.6**	**-19.0**
Imports from Outside Cepi	n.a.	6 491	5 987	5 442	**4 459**	**5 234**	**17.4**	**-3.8**
Trade Balance with Outside Cepi	n.a.	7 428	13 244	14 031	**10 621**	**10 546**	**-0.7**	**-24.8**
Consumption[7] (Apparent)	60 716	83 199	82 321	71 708	**63 753**	**68 196**	**7.0**	**-4.9**
Exports/Production	n.a.	15.3%	20.1%	22.7%	**20.3%**	**20.0%**	**-0.2**	**-11.8**
Imports/Consumption	n.a.	7.8%	7.3%	7.6%	**7.0%**	**7.7%**	**0.7**	**1.1**

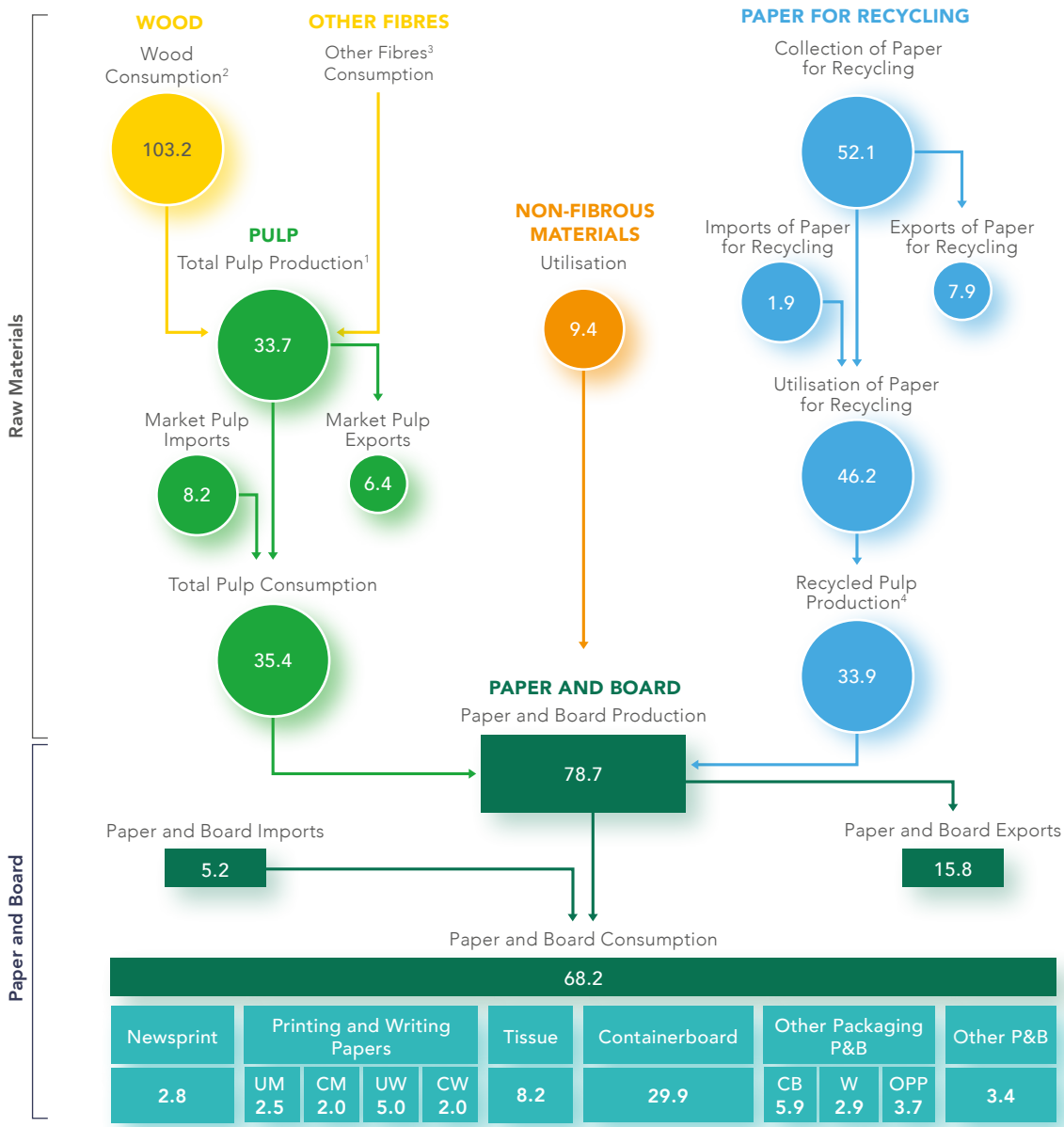
Cepi Pulp and Paper Industry

	1991	2000	2010	2020	2023	2024	% Change 2024/2023	% Change 2024/2020
Wood ('000 m³)								
Consumption	120 274	148 093	148 901	146 515	**137 756**	**141 436**	**2.7**	**-3.5**
Hardwood	30 410	40 048	38 119	40 192	**33 014**	**33 846**	**2.5**	**-15.8**
Softwood	89 863	108 046	110 782	106 323	**104 743**	**107 590**	**2.7**	**1.2**
Imports/Consumption	12.8%	17.1%	17.1%	14.5%	**9.2%**	**10.7%**	**1.5**	**-26.4**
Domestic/Consumption	87.2%	82.9%	82.9%	85.5%	**90.8%**	**89.3%**	**-1.5**	**4.5**
Paper for Recycling ('000 Tonnes)								
Collection	25 566	44 083	56 401	55 097	**52 159**	**52 130**	**-0.1**	**-5.4**
Utilisation	25 476	41 308	48 325	48 280	**44 294**	**46 163**	**4.2**	**-4.4**
Exports to Outside Cepi	n.a.	3 795	9 875	8 679	**9 664**	**7 878**	**-18.5**	**-9.2**
Imports from Outside Cepi	n.a.	1 021	1 799	1 862	**1 799**	**1 911**	**6.2**	**2.6**
Trade Balance with Outside Cepi	n.a.	2 775	8 076	6 817	**7 866**	**5 967**	**-24.1**	**-12.5**
Utilisation Rate	39.0%	45.3%	50.6%	56.3%	**59.6%**	**58.6%**	**-0.9**	**4.1**
Exports/Collection	n.a.	8.6%	17.5%	15.8%	**18.5%**	**15.1%**	**-3.4**	**-4.1**
Imports/Utilisation	n.a.	2.5%	3.7%	3.9%	**4.1%**	**4.1%**	**0.1**	**7.3**
Recycling Rate in Europe[4] ('000 Tonnes)								
Paper for Recycling Collection	26 129	45 003	58 172	55 980	**53 617**	**53 399**	**-0.4**	**-4.6**
Paper and Board Apparent Consumption	64 801	86 826	84 873	76 361	**67 609**	**71 097**	**5.2**	**-6.9**
Recycling Rate	40.3%	51.8%	68.5%	73.3%	**79.3%**	**75.1%**	**-4.2**	**2.5**
Non-Fibrous Materials ('000 Tonnes)								
Consumption	9 521	15 626	16 235	10 701	**8 959**	**9 353**	**4.4**	**-12.6**
Energy and Environment[5]								
Fuels Consumption ('000 Tj)	930	1 141	1 282	1 149	**1 040**	**n.a.**		
Biomass Use (%) of Total FC	44.4	49.3	52.9	60.4	**65.5**	**n.a.**		
Electricity Consumption (GWh)	86 597	110 504	113 153	91 081	**76 160**	**n.a.**		
% of Electricity produced through CHP[6]	88.0	90.4	95.4	95.7	**95.4**	**n.a.**		
CO_2 Emissions (Cepi Countries)								
CO_2 Direct Emissions (Mt)	39.05	41.94	37.99	29.00	**22.47**	**22.05**	**-1.8**	**-24.0**
Specific CO_2 Emissions ($kt\ CO_2$ / kt of product)	0.54	0.42	0.35	0.29	**0.25**	**0.24**	**-6.3**	**-17.8**

[1]470 groups or corporations in 2024, when considering the entities established in one or several countries that are not bound together by legal and/or financial links.
[2]2023 and 2024 figures are based on members' data, Eurostat and estimates for some countries.
[3]Total Pulp = Market Pulp + Integrated Pulp.
[4]Europe means EU-27 countries plus Norway, Switzerland and the United Kingdom - Recycling Rate in 2024: see note page 26.
[5] Greece, Hungary, Romania and Slovenia are not included in energy and environment data.
[6]CHP: combined heat and power (compared to total on-site electricity generation).
[7]Cepi Apparent Consumption = production - exports to outside Cepi + imports from outside Cepi.

Pulp and Paper Industry in 2024

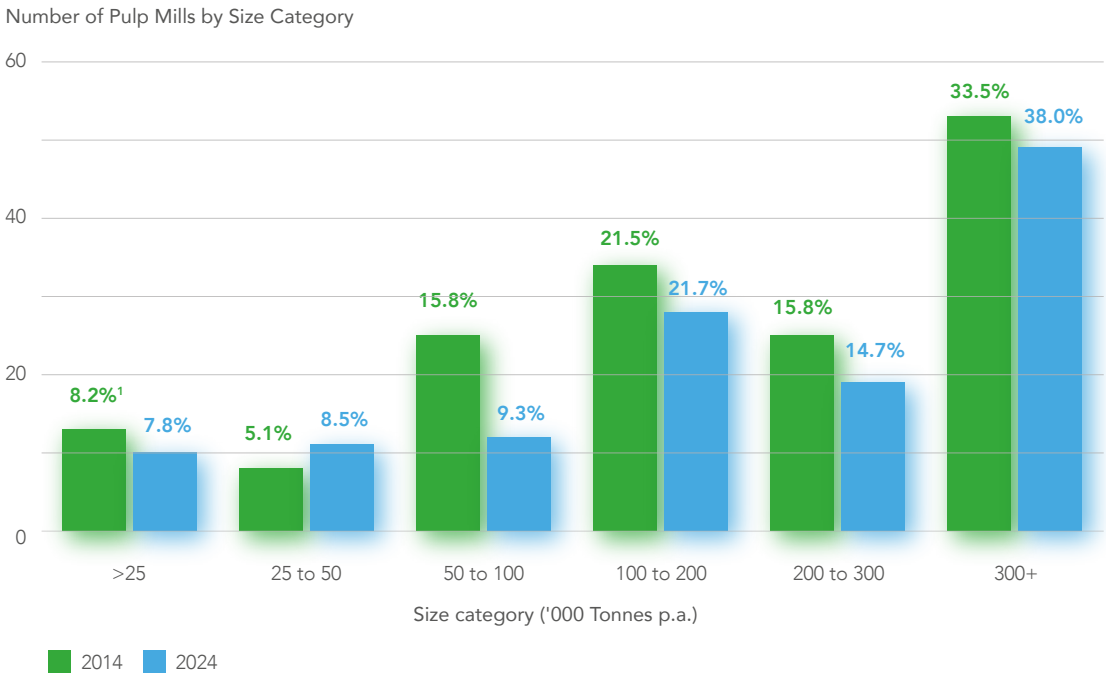
Figures in Million Tonnes



Paper and Board Consumption = Production + Imports from outside Cepi - Exports to outside Cepi.
UM = Uncoated Mechanical - CM = Coated Mechanical - UW = Uncoated Woodfree - CW = Coated Woodfree
CB = Carton Board - W = Wrappings - OPP = Other Paper and Board for Packaging - Tissue = Tissue Paper (excuding converted products)

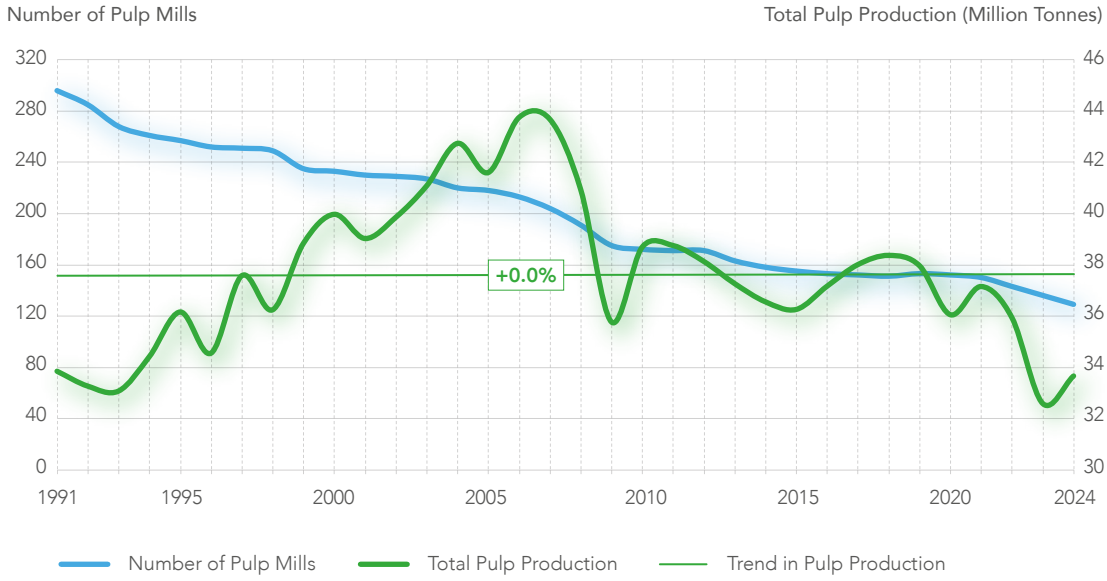
[1] of which Integrated Pulp 18.9 Million Tonnes
[2] Wood consumption: see definition on page 33.
[3] Straw, Bamboo, Bagasse, …
[4] Estimated by Cepi

Number of Pulp Mills by Volume in 2014 and 2024



[1]Share of Total Number of Mills

Number of Pulp Mills and Total Pulp Production



Total Pulp[1] Production and Consumption

'000 Tonnes

Total Pulp[1]	Production 2023	Production 2024	Production % Change 2024/2023	Consumption 2023	Consumption 2024	Consumption % Change 2024/2023
Mechanical & Semi-Chemical Pulp	6 531	**6 922**	6.0	6 267	**6 788**	8.3
Sulphite Pulp	1 162	**1 192**	2.5	1 059	**1 101**	3.9
Sulphate Pulp	24 806	**25 465**	2.7	24 296	**27 336**	12.5
Chemical Pulp	25 968	**26 657**	2.7	25 355	**28 437**	12.2
Total Woodpulp	32 499	**33 579**	3.3	31 622	**35 225**	11.4
Other Pulp[2]	82	**78**	-4.2	208	**222**	6.9
Total Pulp[1]	32 581	**33 658**	3.3	31 830	**35 447**	11.4

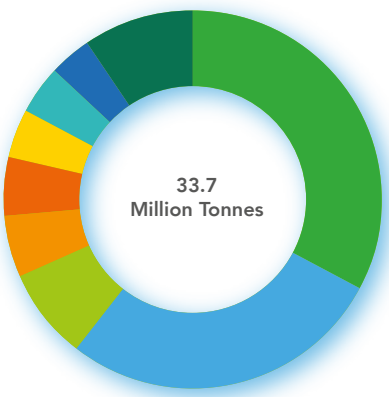
… of which Market Pulp Production and Consumption

'000 Tonnes

Market Pulp	Production 2023	Production 2024	Production % Change 2024/2023	Consumption 2023	Consumption 2024	Consumption % Change 2024/2023
Mechanical & Semi-Chemical Pulp	971	**1 088**	12.1	707	**954**	34.9
Sulphite Pulp	334	**336**	0.5	231	**245**	6.2
Sulphate Pulp	13 492	**13 227**	-2.0	12 982	**15 098**	16.3
Chemical Pulp	13 826	**13 563**	-1.9	13 213	**15 343**	16.1
Total Woodpulp	14 797	**14 651**	-1.0	13 920	**16 297**	17.1
Other Pulp[2]	58	**57**	-2.7	184	**200**	8.8
Total Market Pulp	14 855	**14 708**	-1.0	14 104	**16 497**	17.0

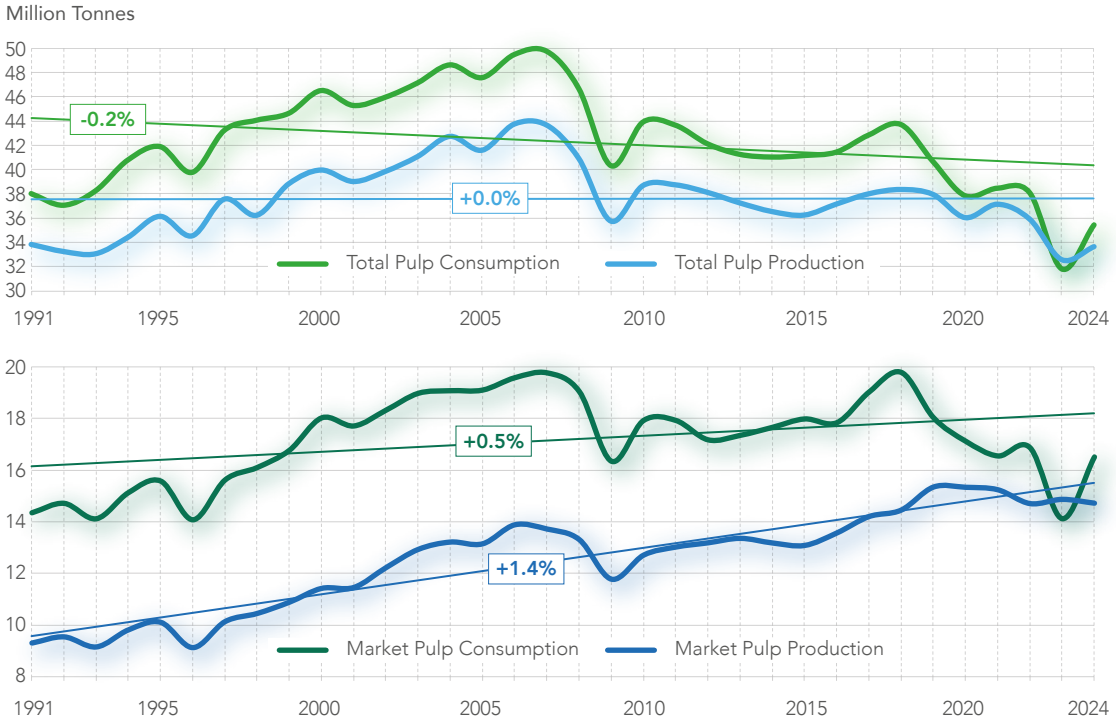
[1] Total Pulp = Market Pulp + Integrated Pulp
[2] Other Pulp: see definition page 33.

Total Pulp[1] Production by Country in 2024

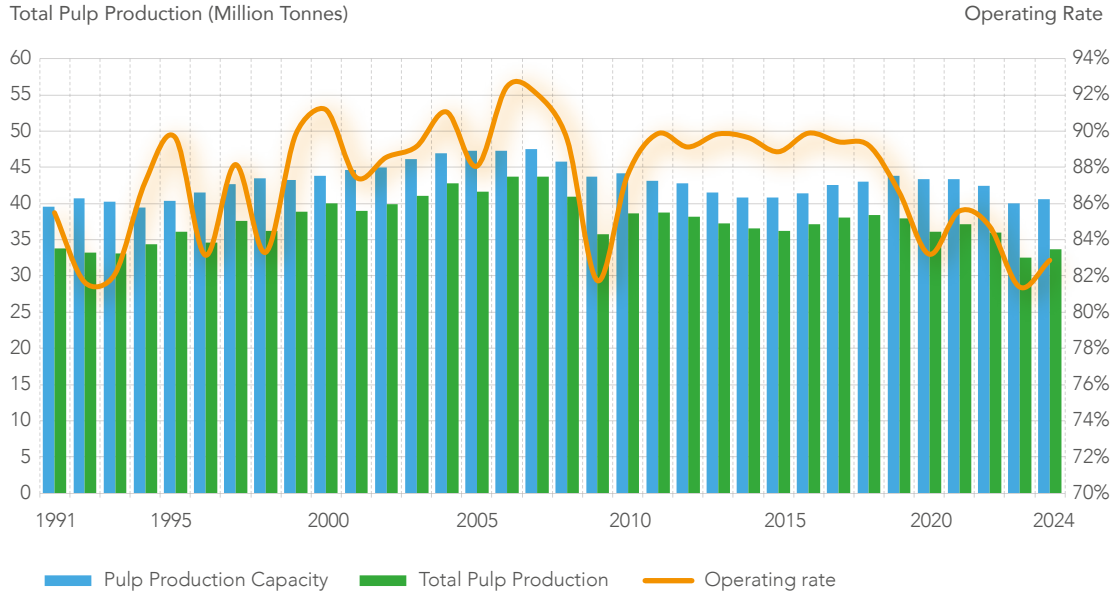


- Sweden **32.9%**
- Finland **27.7%**
- Portugal **8.0%**
- Germany **5.2%**
- Spain **5.0%**
- France **4.2%**
- Austria **4.2%**
- Poland **3.5%**
- Rest of Cepi Countries **9.3%**

Market Pulp and Total Pulp[1] Production and Consumption

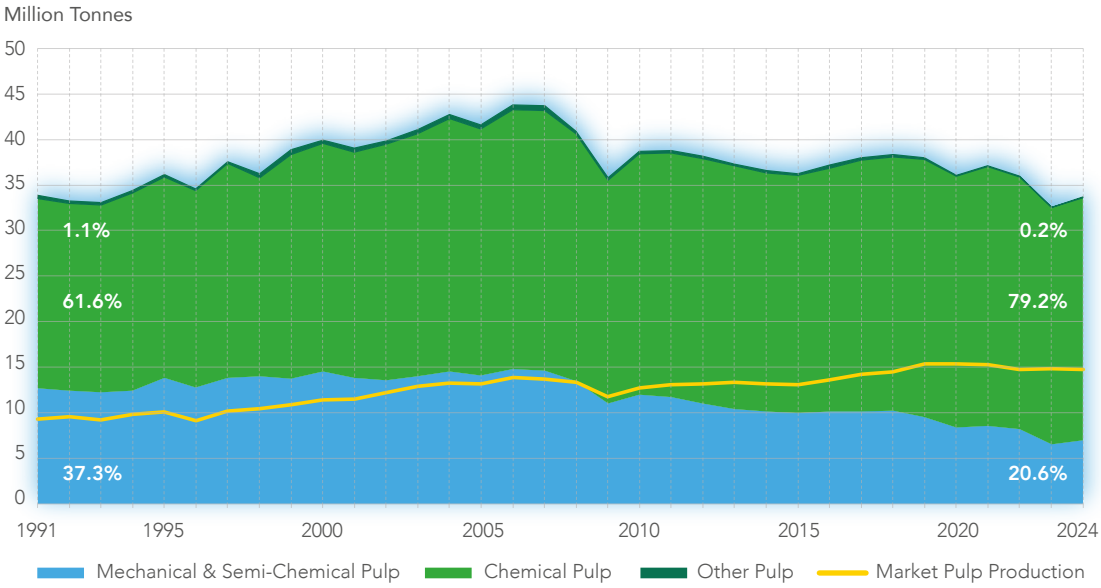


Total Pulp[1] Production and Capacity

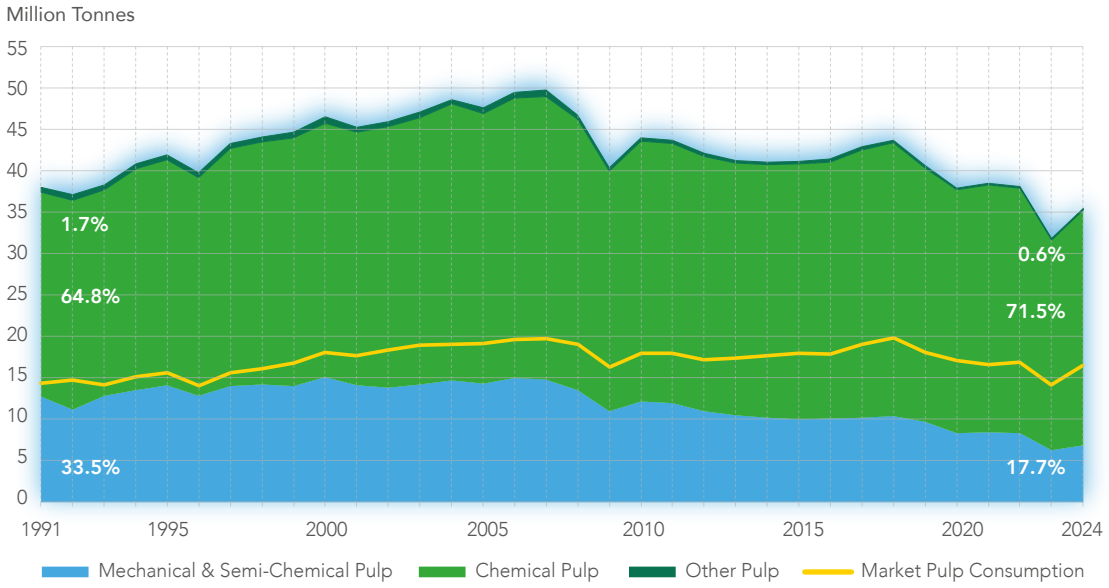


[1] Total Pulp = Integrated Pulp + Market Pulp

Total Pulp[1] Production by Grade and Market Pulp Production

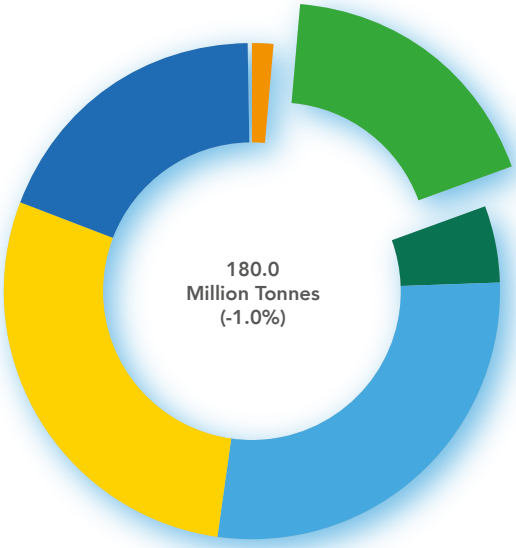


Total Pulp[1] Consumption by Grade and Market Pulp Consumption



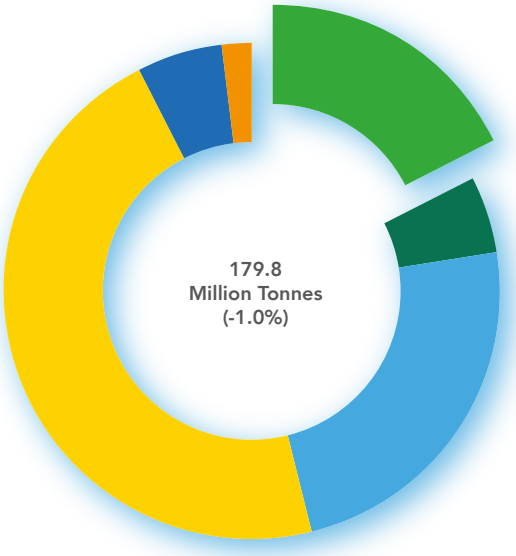
[1] Total Pulp = Integrated Pulp + Market Pulp

World Total Pulp[1] Production by Region in 2023[3]



- Cepi **18.1%**
- Other Europe[2] **5.0%**
- North America **27.7%**
- Asia **28.7%**
- Latin America **19.0%**
- Rest of the World **1.6%**

World Total Pulp[1] Consumption by Region in 2023[3]



- Cepi **17.7%**
- Other Europe[2] **4.8%**
- North America **23.7%**
- Asia **46.3%**
- Latin America **5.7%**
- Rest of the World **1.8%**

[1] Total Pulp = Integrated Pulp + Market Pulp
[2] Other Europe: total Europe excluding Cepi countries
[3] Sources: Cepi, Fastmarkets.

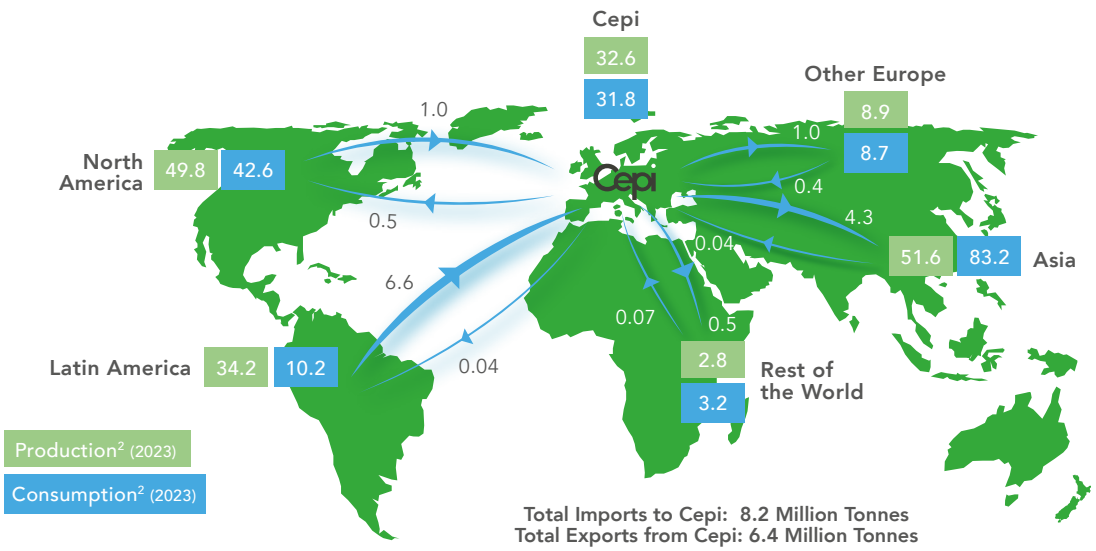
Market Pulp Exports to Other Regions

'000 Tonnes	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Other Europe[1]	724	719	1 167	948	952	0.4	14.9
North America	104	62	266	391	519	32.6	8.1
Latin America	6	49	61	35	41	16.7	0.6
Asia	412	1 595	4 662	5 526	4 323	-21.8	67.8
Rest of the World	86	142	377	497	545	9.6	8.5
Total	**1 332**	**2 567**	**6 532**	**7 398**	**6 379**	**-13.8**	**100.0**

Market Pulp Imports from Other Regions

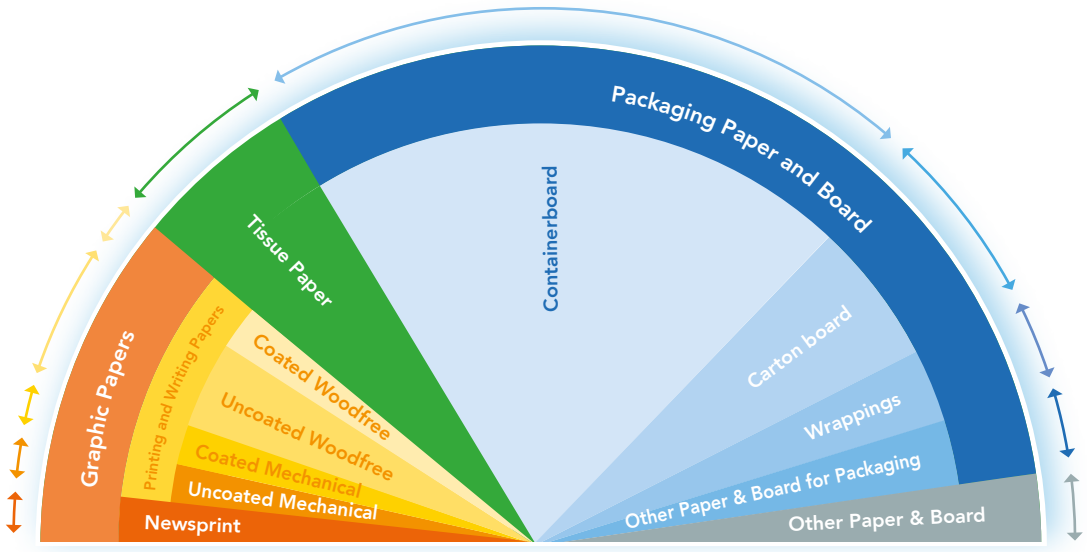
'000 Tonnes	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Other Europe[1]	679	499	558	301	379	26.1	4.6
North America	4 644	2 306	1 354	1 009	1 048	3.9	12.8
Latin America	1 922	4 750	6 141	5 248	6 626	26.3	81.1
Asia	285	137	53	38	42	8.8	0.5
Rest of the World	461	86	215	51	73	43.4	0.9
Total	**7 992**	**7 777**	**8 321**	**6 646**	**8 168**	**22.9**	**100.0**

Trade Flows of Market Pulp in 2024 (Million Tonnes)



[1] Other Europe: total Europe excluding Cepi countries
[2] Production and consumption of total pulp (market and integrated).
Source: Cepi, Fastmarkets.

Paper and Board - A Whole Range of Products for Everyday Life



Total Paper and Board Production: 78.7 Million Tonnes

MAIN USES OF PAPER AND BOARD GRADES

Graphic Papers

Newsprint - Newspapers
Uncoated Mechanical - Directories, Catalogues, Flyers, Books, Magazines, Inserts, Coupons, Tabloids
Coated Mechanical - Magazines, Catalogues,Advertising material
Uncoated Woodfree - Catalogues and brochures, Magazines (higher quality), office paper, company annual reports
Coated Woodfree - Books, Stationery, Envelopes, Greetings Cards

Tissue Paper

Toilet paper, Tissues, Kitchen towels, Hand towels, Napkins and serviettes, Industrial wipers, Clothing products, Medical products, Nappies, Feminine hygiene products

Packaging Paper and Board

Containerboard - Corrugated cases, Storage boxes, Transport packaging, Product displays
Cartonboard - Packaging for perfume, pharmaceutical products, frozen foods and cigarettes, Multipack cartons, Packaging for cosmetics, chocolate, clothing, toys and games, Packaging for cereal, dry foods, detergents, toiletries and household goods
Wrappings - Sacks, Bags, Wrappers, Greaseproof paper, Sulphite papers
Other Paper and Board for Packaging - Tubes, Toys and games, Building materials, Book and diary covers, Stiffeners

Other Paper and Board

Filter Paper, Building/roofing materials, Insulation, Cigarette paper, Wallpaper

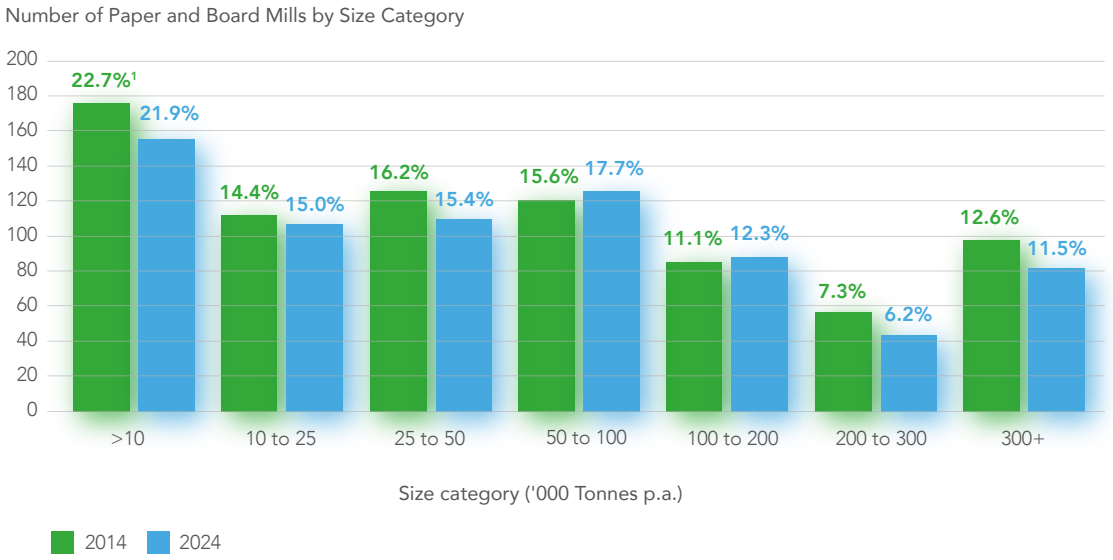
INCLUDING 10.6 MILLION TONNES OF SPECIALITY PAPER AND BOARD

Speciality Paper and Board

Paper or board with enhanced properties (physical, optical, electrical, chemical and/or other special considerations) that are required for either the performance of the paper in a special application or to convey a visual or tactile perception of a brand.

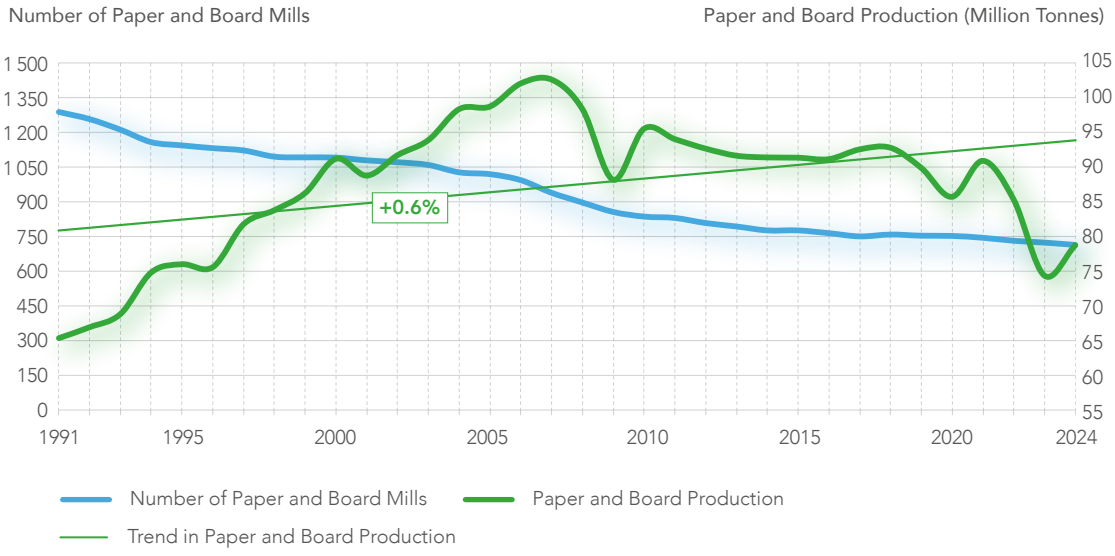
Speciality paper and board can be found under several Cepi grades: wrappings, cartonboard, graphic papers, tisse paper and other paper and board. Europe is currently the leading specialty paper and board producing and exporting region.

Number of Paper and Board Mills by Volume in 2014 and 2024



[1] Share of Total Number of Mills

Number of Paper and Board Mills and Paper and Board Production

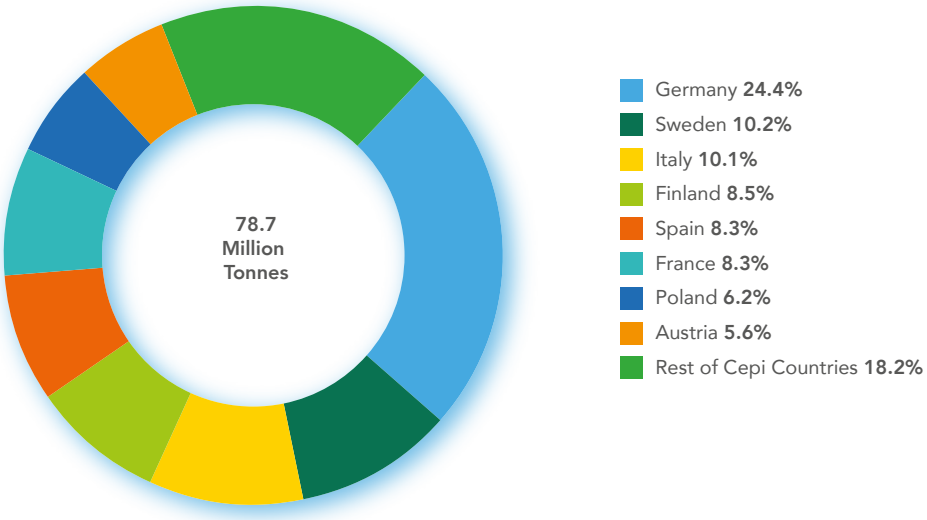


Paper and Board Production and Consumption

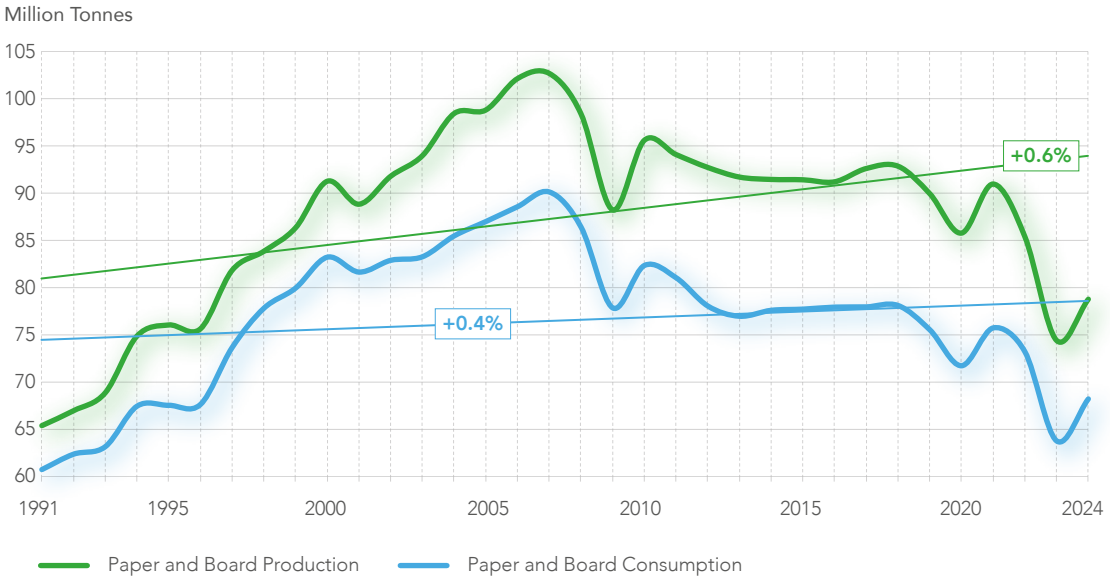
'000 Tonnes	Production 2023	Production 2024	% Change 2024/2023	Consumption 2023	Consumption 2024	% Change 2024/2023
Newsprint	2 778	**2 727**	-1.8	2 640	**2 800**	6.1
Uncoated Mechanical	2 983	**2 894**	-3.0	2 609	**2 468**	-5.4
Coated Mechanical	2 719	**2 657**	-2.3	2 013	**2 022**	0.4
Uncoated Woodfree	5 579	**6 002**	7.6	4 630	**4 982**	7.6
Coated Woodfree	2 668	**3 079**	15.4	1 754	**2 009**	14.5
Printing and Writing Papers	13 949	**14 633**	4.9	11 007	**11 481**	4.3
Total Graphic Papers	16 727	**17 360**	3.8	13 647	**14 281**	4.6
Tissue Paper	7 799	**8 237**	5.6	7 654	**8 183**	6.9
Containerboard	30 990	**32 395**	4.5	28 293	**29 922**	5.8
Cartonboard	7 920	**8 786**	10.9	5 339	**5 860**	9.8
Wrappings	3 622	**4 336**	19.7	2 097	**2 912**	38.8
Other Paper and Board for Packaging	3 913	**4 034**	3.1	3 556	**3 667**	3.1
Total Packaging Paper and Board	46 445	**49 552**	6.7	39 286	**42 361**	7.8
Other Paper and Board	3 404	**3 593**	5.6	3 166	**3 370**	6.4
Total Paper and Board	74 374	**78 742**	5.9	63 753	**68 196**	7.0
Including Speciality Paper and Board[1]	9 740	**10 574**	8.6			

[1] Speciality paper and board: paper or board with enhanced properties (physical, optical, electrical, chemical and/or other special considerations) that are required for either the performance of the paper in a special application or to convey a visual or tactile perception of a brand.
Source of Data: Smithers

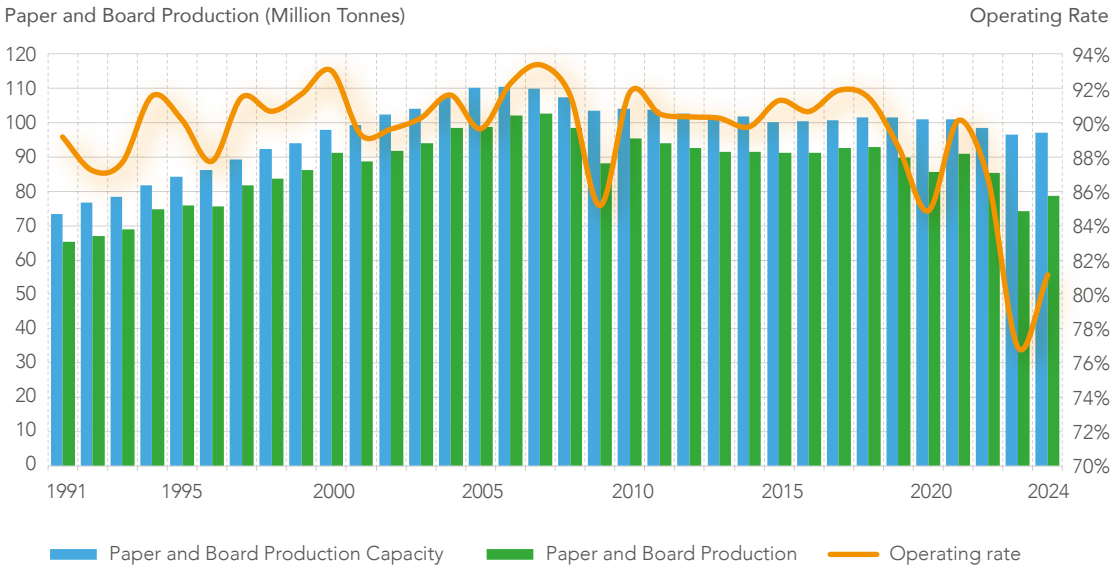
Paper and Board Production by Country in 2024



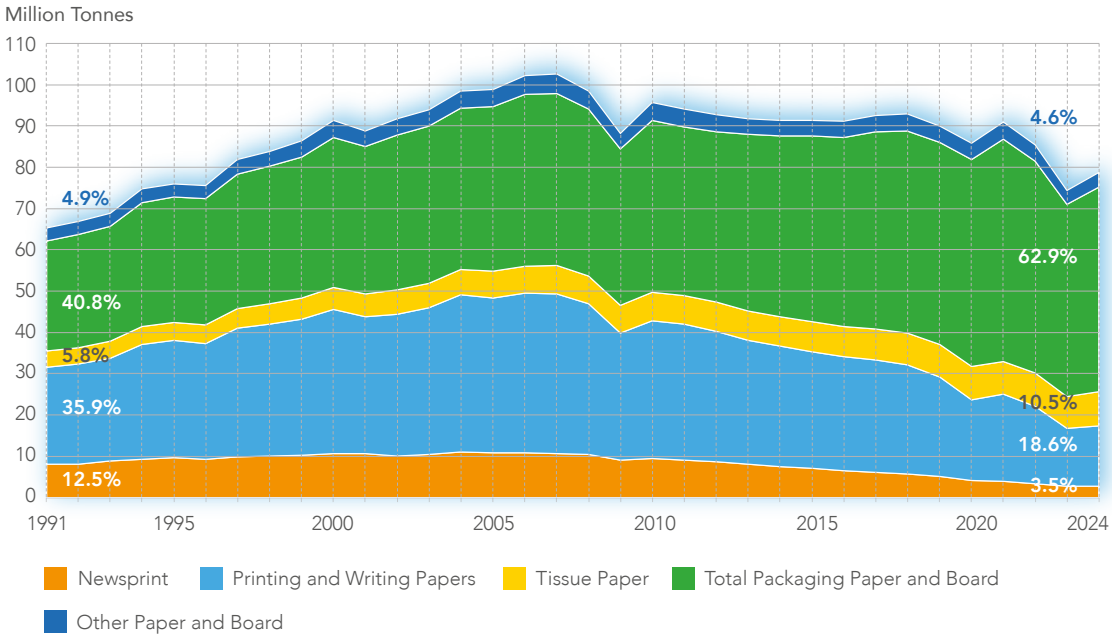
Paper and Board Production and Consumption



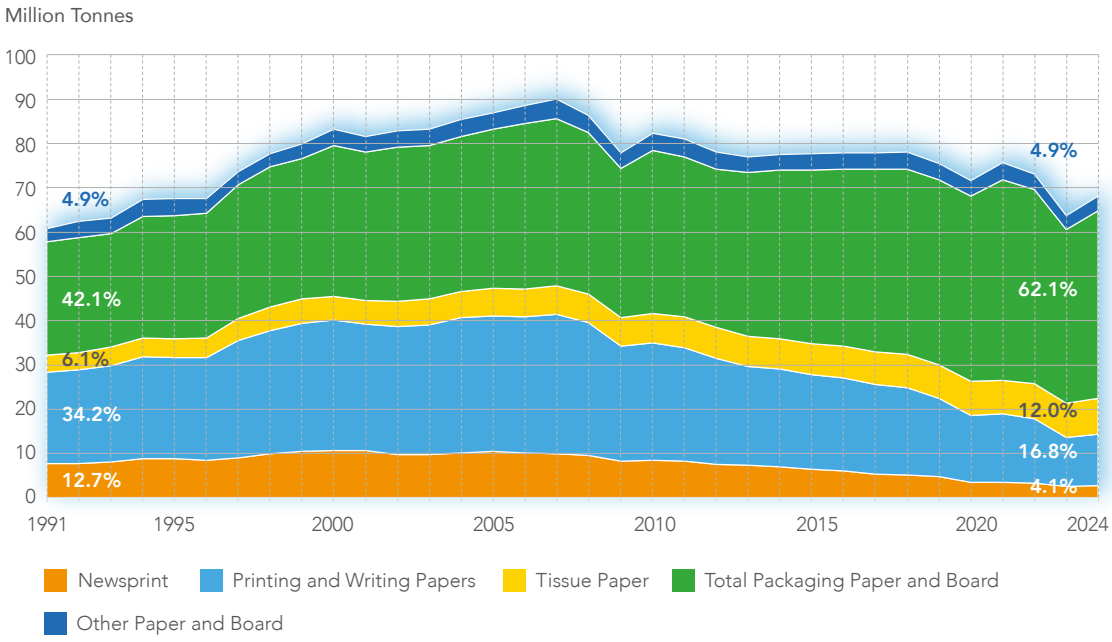
Paper and Board Production and Capacity



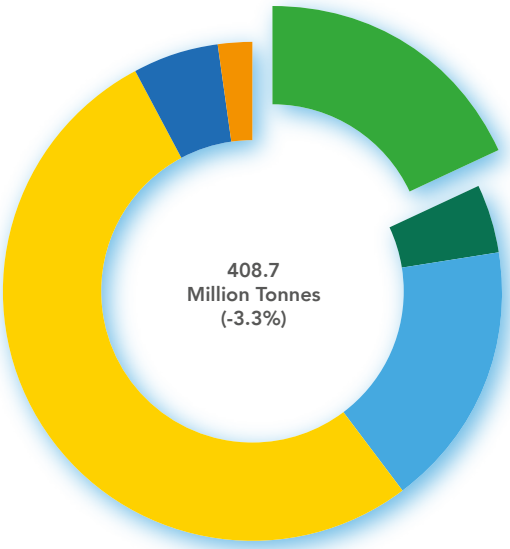
Paper and Board Production by Grade



Paper and Board Consumption by Grade

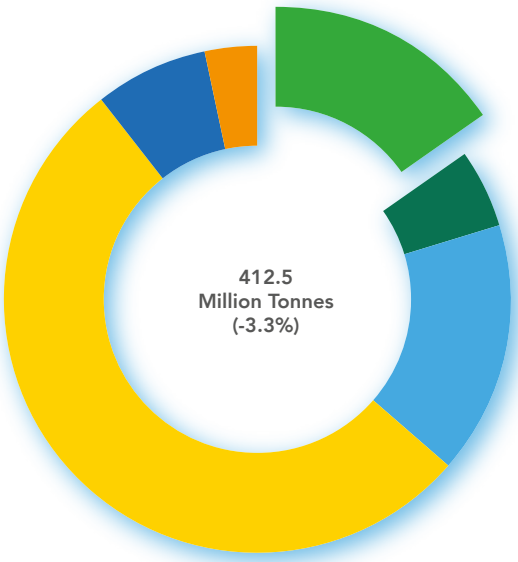


Paper and Board Production by Region in 2023[1]



- Cepi **18.2%**
- Other Europe[2] **4.4%**
- North America **17.1%**
- Asia **52.5%**
- Latin America **5.7%**
- Rest of the World **2.0%**

Paper and Board Consumption by Region in 2023[1]



- Cepi **15.5%**
- Other Europe[2] **5.0%**
- North America **16.0%**
- Asia **53.1%**
- Latin America **7.2%**
- Rest of the World **3.3%**

[1] Sources: Cepi, Fastmarkets.
[2] Other Europe: total Europe excluding Cepi countries.

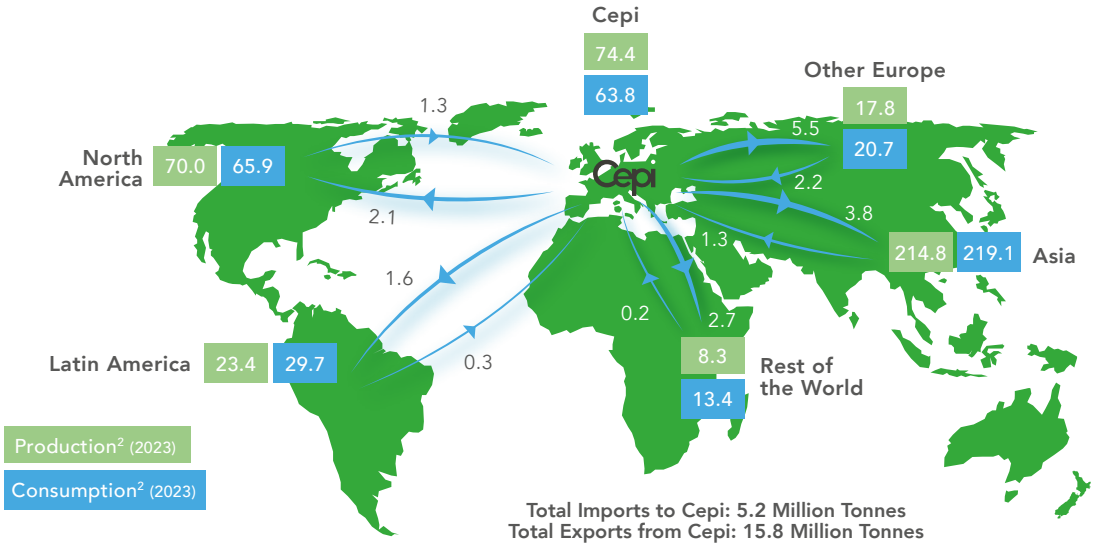
Paper and Board Exports to Other Regions

'000 Tonnes	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Other Europe[1]	6 120	7 391	7 207	**5 351**	**5 497**	**2.7**	**34.8**
North America	2 283	2 055	2 160	**1 738**	**2 105**	**21.1**	**13.3**
Latin America	874	1 879	1 604	**1 320**	**1 645**	**24.6**	**10.4**
Asia	2 934	5 115	5 513	**4 010**	**3 804**	**-5.1**	**24.1**
Rest of the World	1 708	2 792	2 990	**2 661**	**2 729**	**2.5**	**17.3**
Total	**13 919**	**19 231**	**19 474**	**15 080**	**15 780**	**4.6**	**100.0**

Paper and Board Imports from Other Regions

'000 Tonnes	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Other Europe[1]	3 362	2 655	2 618	**1 915**	**2 230**	**16.5**	**42.6**
North America	2 227	1 866	1 541	**1 143**	**1 276**	**11.7**	**24.4**
Latin America	202	500	351	**248**	**312**	**25.9**	**6.0**
Asia	343	651	762	**999**	**1 255**	**25.6**	**24.0**
Rest of the World	356	314	171	**155**	**161**	**4.1**	**3.1**
Total	**6 491**	**5 987**	**5 442**	**4 459**	**5 234**	**17.4**	**100.0**

Trade Flows of Paper and Board in 2024 (Million Tonnes)

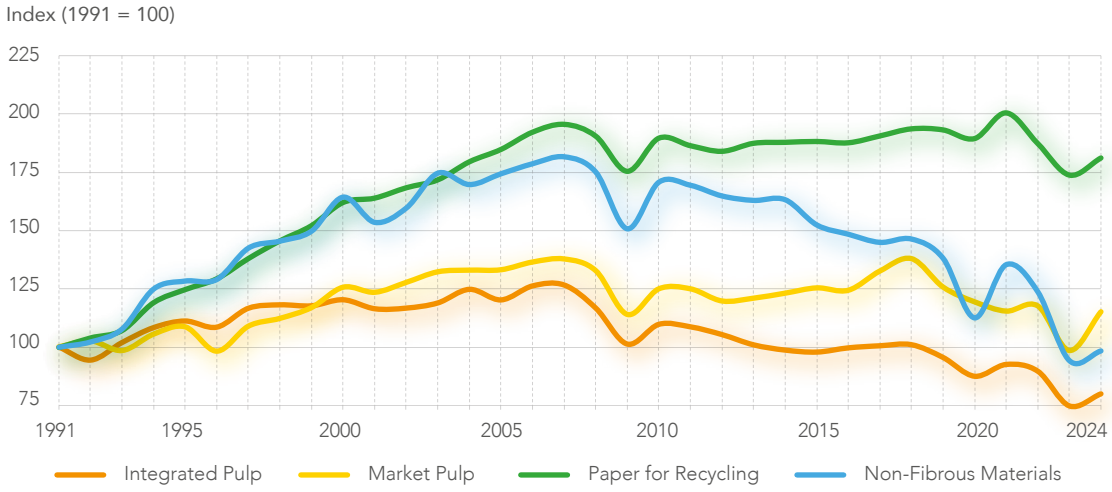


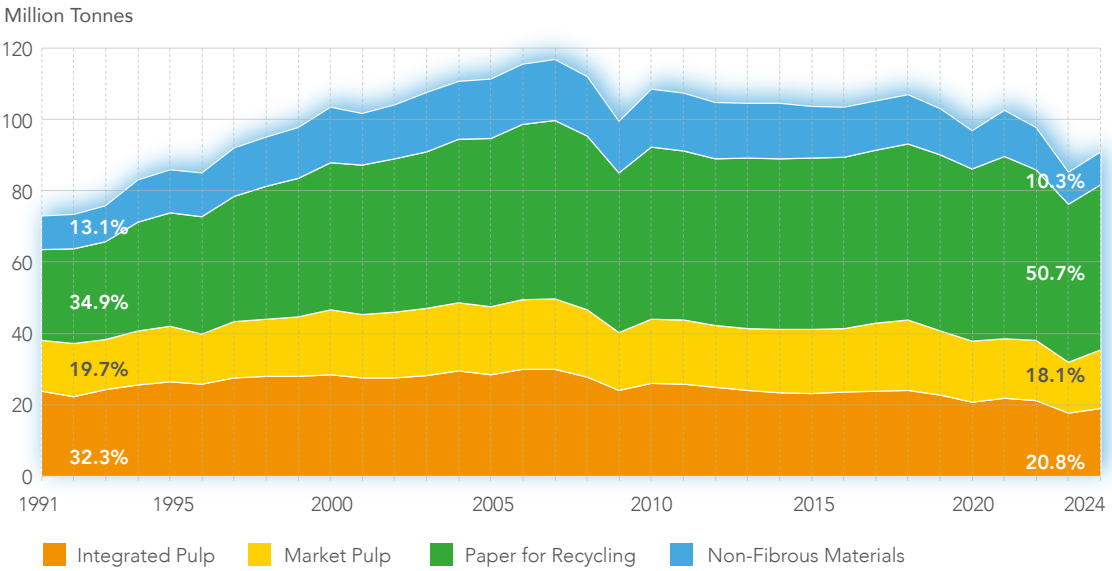
[1] Other Europe: total Europe excluding Cepi countries
[2] Source: Cepi, Fastmarkets.

Raw Materials Consumption

'000 Tonnes	1991	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Integrated Pulp	23 687	28 475	25 989	20 728	**17 726**	**18 950**	**6.9**	**20.8**
Market Pulp	14 332	18 015	17 916	17 110	**14 104**	**16 497**	**17.0**	**18.1**
Paper for Recycling	25 476	41 308	48 325	48 280	**44 294**	**46 163**	**4.2**	**50.7**
Non-Fibrous Materials	9 521	15 626	16 235	10 701	**8 959**	**9 353**	**4.4**	**10.3**
Total Raw Materials	**73 016**	**103 424**	**108 465**	**96 819**	**85 083**	**90 963**	**6.9**	**100.0**

Raw Materials Consumption





Wood Consumption

'000 m³	1991	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Softwood Roundwood	65 240	72 372	76 641	71 963	**74 754**	**76 209**	1.9	53.9
Softwood Chips	24 623	35 673	34 141	34 360	**29 988**	**31 381**	4.6	22.2
Total Softwood	89 863	108 046	110 782	106 323	104 743	107 590	2.7	76.1
Hardwood Roundwood	28 963	38 542	36 635	38 892	**31 324**	**31 829**	1.6	22.5
Hardwood Chips	1 447	1 505	1 483	1 301	**1 690**	**2 017**	19.4	1.4
Total Hardwood	30 410	40 048	38 119	40 192	33 014	33 846	2.5	23.9
Total Roundwood	94 204	110 915	113 276	110 854	106 078	108 038	1.8	76.4
Total Chips	26 070	37 179	35 625	35 661	31 678	33 398	5.4	23.6
Total Wood	120 274	148 093	148 901	146 515	137 756	141 436	2.7	100.0

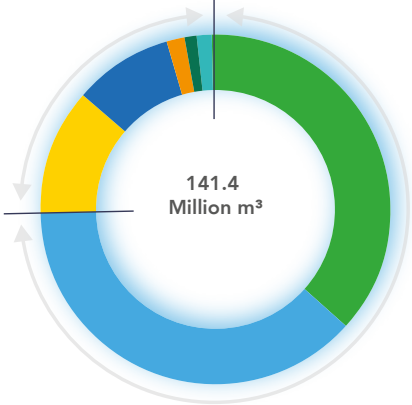
Woodchips used to produce pulp are residues from sawmills and woodworking industry, and are in fact an important contribution to circular economy through industrial symbiosis, although traditionally not reported by Cepi as recycling.

Share in Wood Consumption in 2024

By Species[1]

Hardwood **23.9%**
- Birch **11.9%**
- Eucalyptus **9.2%**
- Beech **1.6%**
- Aspen **1.0%**
- Other Hardwood[2] **1.3%**

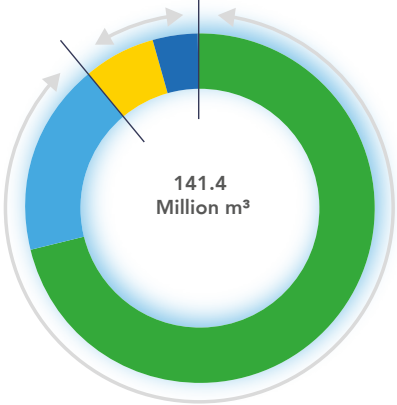
Softwood **76.1%**
- Pine **37.2%**
- Spruce **37.9%**



By Origin

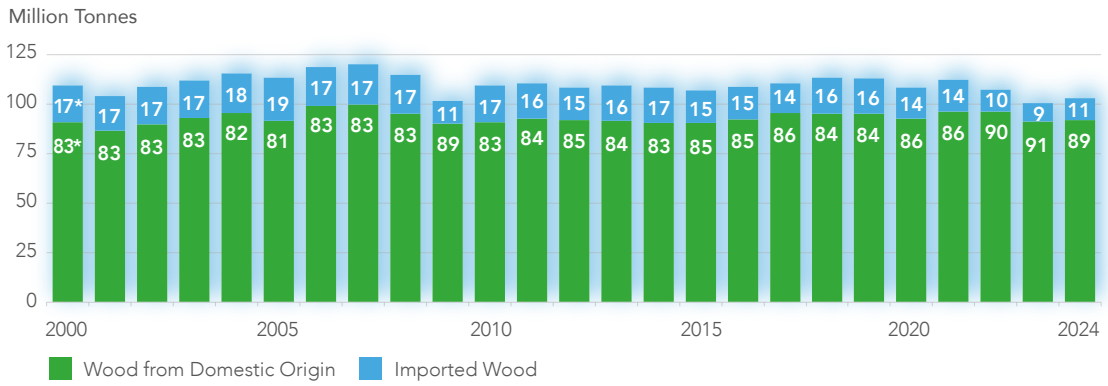
Imported **10.7%**
- Imported Roundwood **6.8%**
- Imported Chips **3.9%**

Domestic **89.3%**
- Domestic Roundwood **71.5%**
- Domestic Chips **17.9%**



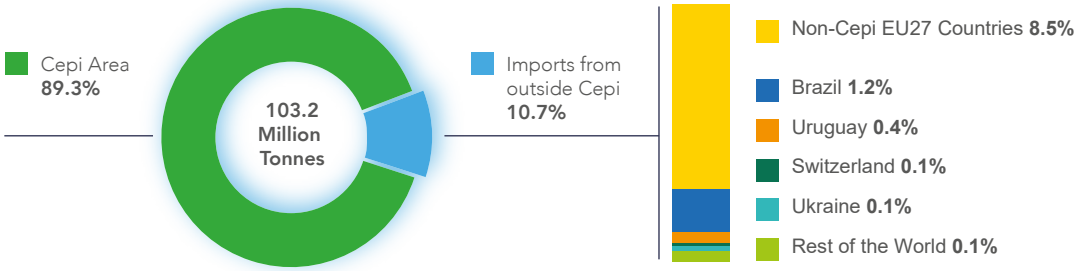
[1] Based on a sample representing 90% of total Cepi consumption
[2] Other Hardwood = hornbeam, ash, maple, accacia, quercus-cerris, oak, alder, poplar, willow, chesnut.

Wood Consumption by Origin and Assortment

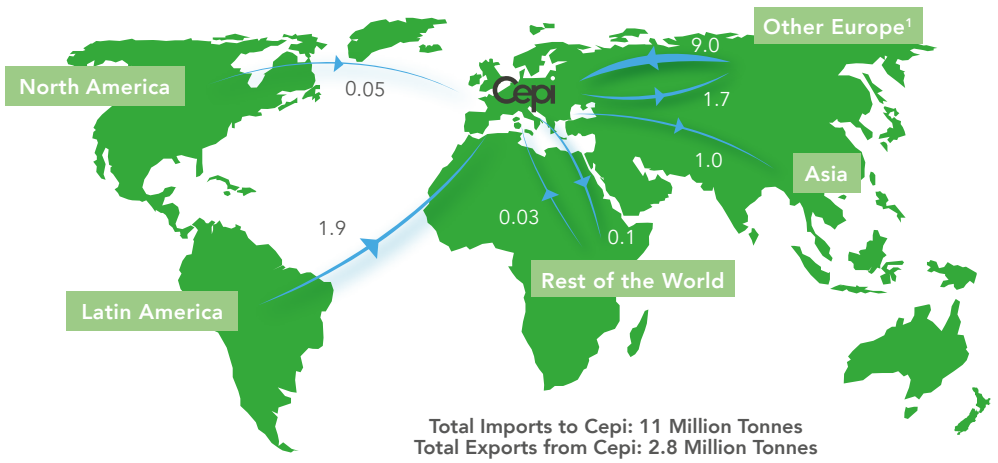


*Percentage of total wood consumption

Wood Consumption Origin in 2024



Trade Flows of Wood in 2024 (Million Tonnes)



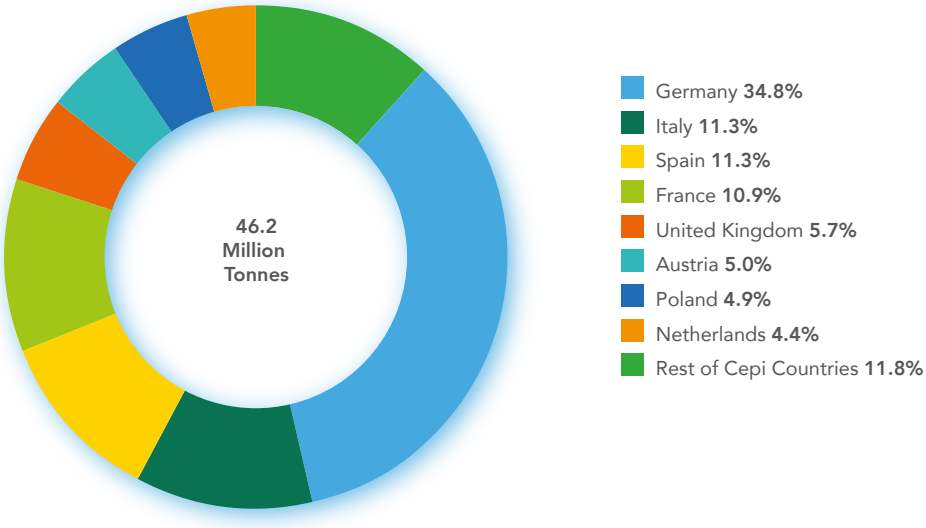
Source: Eurostat
¹ Other Europe: total Europe excluding Cepi countries

Utilisation of Paper for Recycling by Paper and Board Sector in 2024

	Grades of Paper for Recycling							
'000 Tonnes	A	B	C	D	E	F	G	E/G
Paper and Board Sector	**Mixed Grades**	**Corrugated and Kraft**	**Newspapers & Magazines**	**Other Grades**	**Total Use of Paper for Recycling**	**Utilisation by Sector[1] %**	**Total P&B Production**	**Utilisation Rate[2] %**
Newsprint	1	1	2 344	38	2 384	5.2	2 727	87.4
Printing and Writing Papers	14	216	1 629	423	2 282	4.9	14 633	15.6
Total Graphic Papers	**15**	**217**	**3 973**	**461**	**4 666**	**10.1**	**17 360**	**26.9**
Tissue Paper	**242**	**217**	**363**	**1 417**	**2 238**	**4.8**	**8 237**	**27.2**
Containerboard	3 829	25 799	215	831	30 674	66.4	32 395	94.7
Cartonboard	1 613	1 144	41	720	3 517	7.6	8 786	40.0
Wrappings & Other Packaging	1 772	1 350	143	260	3 526	7.6	8 370	42.1
Total Packaging Paper and Board	**7 214**	**28 292**	**399**	**1 811**	**37 716**	**81.7**	**49 552**	**76.1**
Other Paper and Board	**268**	**950**	**39**	**286**	**1 543**	**3.3**	**3 593**	**42.9**
Total Paper and board	**7 738**	**29 676**	**4 774**	**3 975**	**46 163**	**100.0**	**78 742**	**58.6**
Share of Total	**16.8%**	**64.3%**	**10.3%**	**8.6%**	**100.0%**			

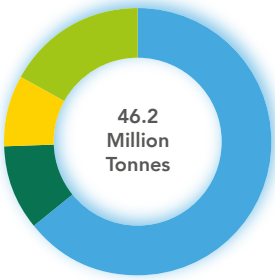
[1] Utilisation by paper and board sector: total use of paper for recycling in a sector as a percentage of the total paper for recycling used by the industry
[2] Utilisation rate: use of paper for recycling in a sector as a percentage of total paper & board production in that sector

Utilisation of Paper for Recycling by Country in 2024



Utilisation of Paper for Recycling by Grade

'000 Tonnes	1991	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Mixed Grades	5 459	8 731	9 198	9 386	**7 710**	**7 738**	**0.4**	**16.8**
Corrugated and Kraft	10 586	16 542	21 144	27 285	**27 872**	**29 676**	**6.5**	**64.3**
Newspapers and Magazines	5 884	10 928	12 451	6 887	**4 924**	**4 774**	**-3.0**	**10.3**
Other Grades	3 547	5 107	5 533	4 722	**3 788**	**3 975**	**4.9**	**8.6**
Total Paper for Recycling	**25 476**	**41 308**	**48 325**	**48 280**	**44 294**	**46 163**	**4.2**	**100.0**

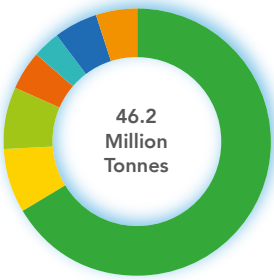


Utilisation by Grade in 2024

- Corrugated and Kraft **64.3%**
- Newspapers and Magazines **10.3%**
- Other Grades **8.6%**
- Mixed Grades **16.8%**

Utilisation of Paper for Recycling by Paper and Board Sector

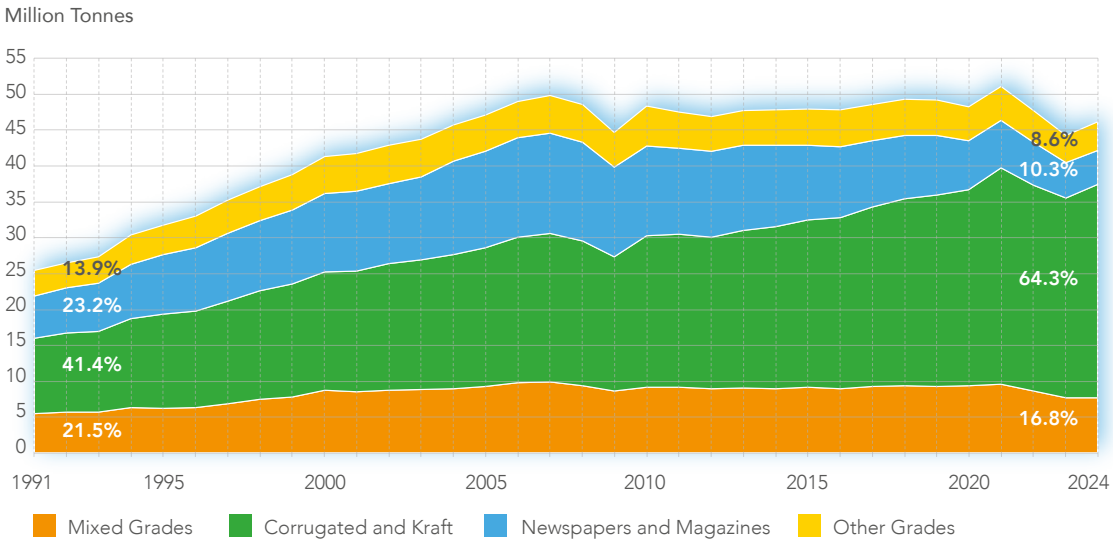
'000 Tonnes	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Newsprint	7 105	8 634	3 780	**2 550**	**2 384**	**-6.5**	**5.2**
Printing and Writing Papers	2 544	3 465	2 781	**2 022**	**2 282**	**12.8**	**4.9**
Tissue Paper	3 621	3 297	2 709	**2 213**	**2 238**	**1.1**	**4.8**
Containerboard	18 221	23 191	29 547	**29 602**	**30 674**	**3.6**	**66.4**
Cartonboard	3 839	3 880	3 476	**3 149**	**3 517**	**11.7**	**7.6**
Wrappings and Other P&B for Packaging	4 058	4 199	4 545	**3 237**	**3 526**	**8.9**	**7.6**
Other Paper and Board	1 922	1 659	1 440	**1 515**	**1 534**	**1.2**	**3.3**
Total Paper for Recycling	**41 308**	**48 325**	**48 280**	**44 294**	**46 163**	**4.2**	**100.0**



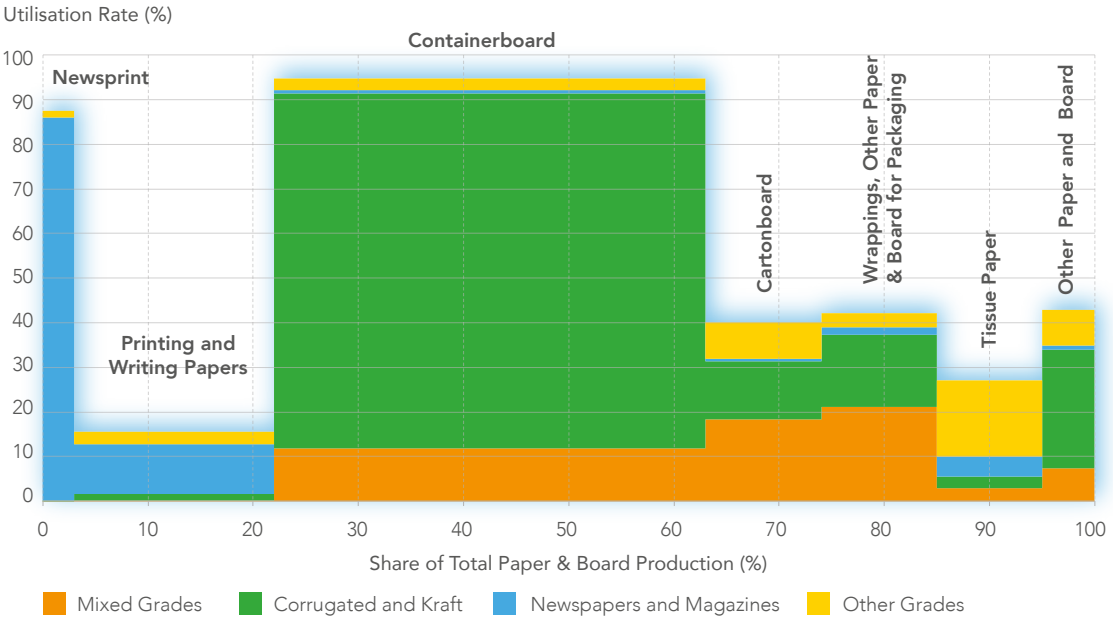
Utilisation by Paper and Board Sector in 2024

- Containerboard **66.5%**
- Cartonboard **7.6%**
- Wrappings and Other P&B for Packaging **7.6%**
- Tissue Paper **4.8%**
- Other Paper and Board **3.3%**
- Newsprint **5.2%**
- Printing and Writing Papers **4.9%**

Utilisation of Paper for Recycling by Grade

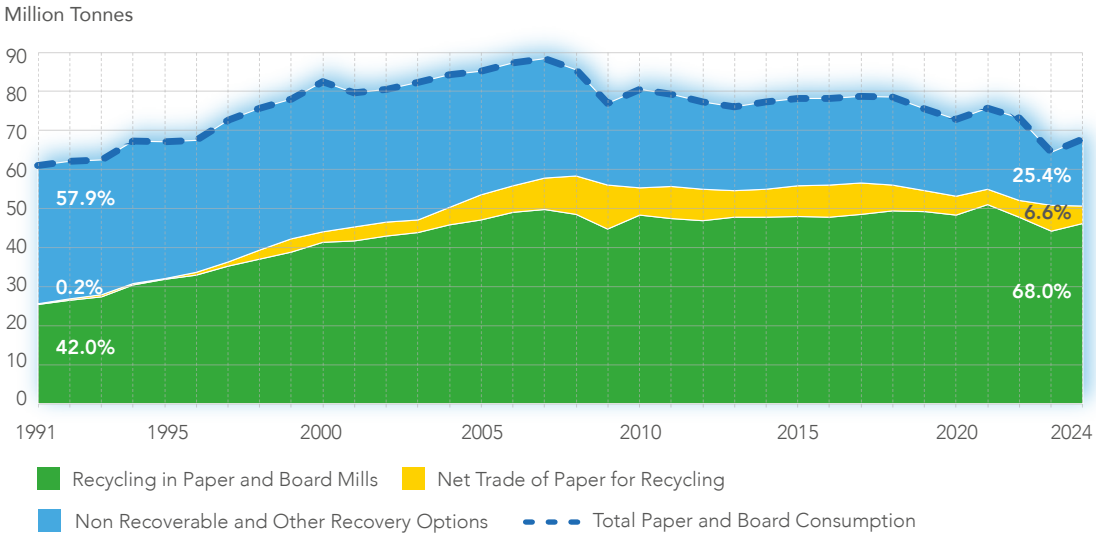


Utilisation of Paper for Recycling by Paper and Board Sector in 2024

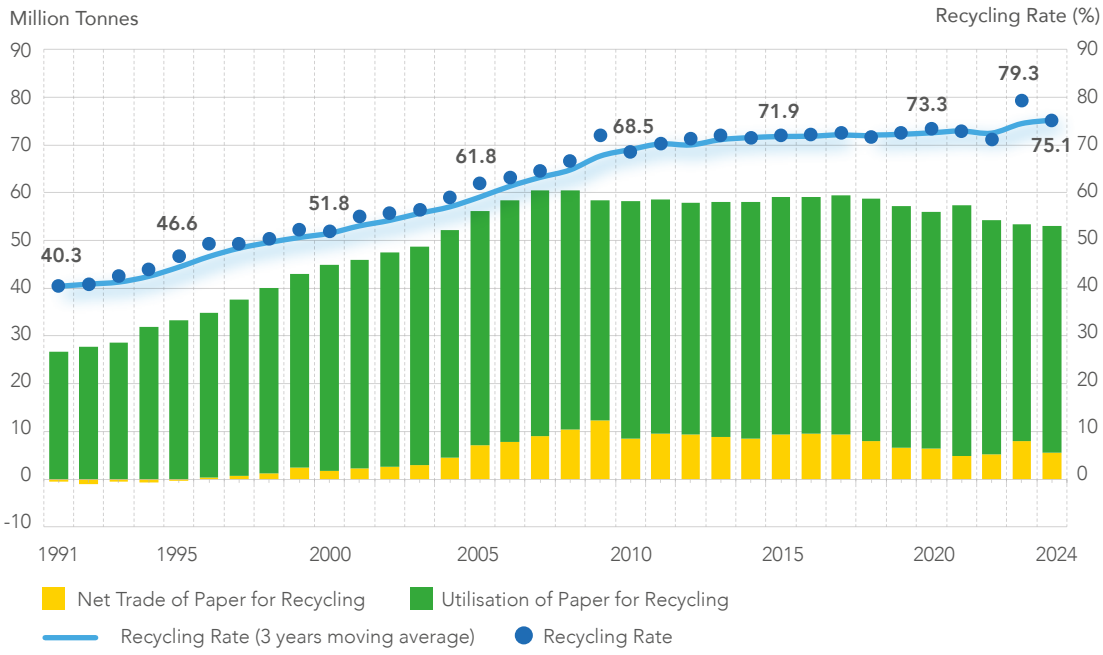


For instance: containerboard represent 41% of total paper and board production, have an utilisation rate of 95% and use 66% of total paper for recycling volumes used by the industry.
Important Note: Paper for recycling is composed of fibres but also unusable materials - non-paper components as well as paper and board detrimental to production. The share of unusable materials depends on the actual sorting and collection of used paper. It varies according to grades of paper for recycling and countries. The volume of recycled fibres actually used to produce new paper is therefore lower than the volume of paper for recycling considered. The utilisation rate compares utilisation of paper for recycling to paper & board production.

Paper and Board Consumption and Recycling



Utilisation, Net Trade and Recycling Rate[1] of Paper for Recycling in Europe[2]



[1] Recycling Rate = "Utilisation of Paper for Recycling + Net Trade of Paper for Recycling", compared to Paper and Board Consumption

Important Note: The paper recycling rate has decreased compared to 2023. However it should be noted that the paper recycling rate was exceptionally high in 2023, due to the relatively low level of the apparent consumption. Looking at a three year rolling average and the long term trend, the 2024 rate confirms the paper recycling value chain is on track to reach its target of 76% paper recycling rate by 2030.

[2] Europe: EU-27 countries plus Norway, Switzerland and the United Kingdom

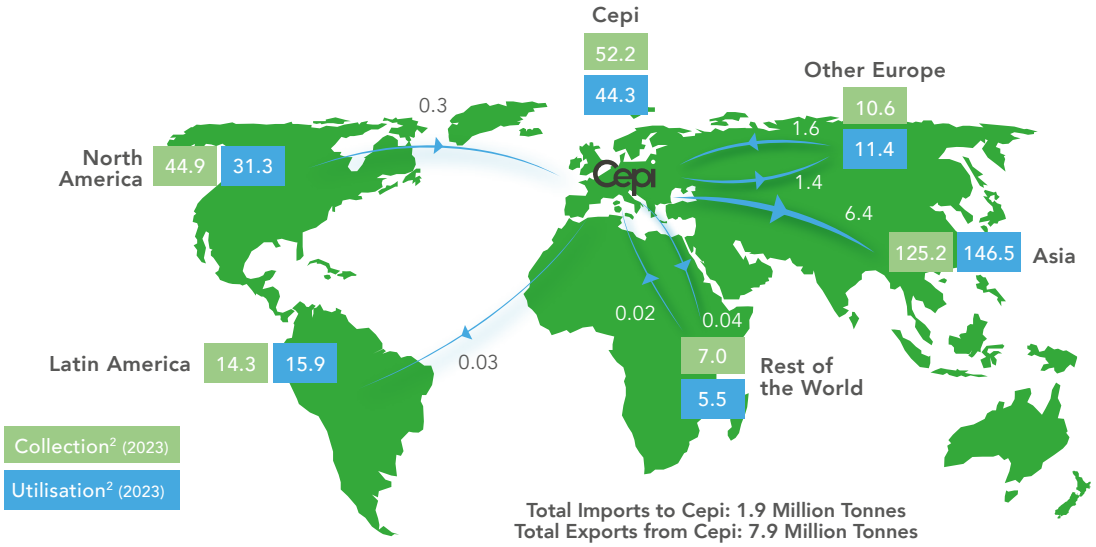
Exports of Paper for Recycling to Other Regions

'000 Tonnes	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Other Europe[1]	720	458	1 813	1 103	1 374	24.6	17.4
North America	47	27	2	1	1	-10.3	0.0
Latin America	7	21	43	27	33	20.9	0.4
Asia	2 894	9 355	6 806	8 503	6 430	-24.4	81.6
Rest of the World	127	14	16	31	40	31.8	0.5
Total	**3 795**	**9 875**	**8 679**	**9 664**	**7 878**	**-18.5**	**100.0**

Imports of Paper for Recycling from Other Regions

'000 Tonnes	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Other Europe[1]	738	1 598	1 487	1 503	1 594	6.0	83.4
North America	266	184	323	243	271	11.7	14.2
Latin America	0	3	11	17	10	-42.5	0.5
Asia	10	6	10	5	11	112.5	0.6
Rest of the World	7	8	30	30	24	-19.1	1.3
Total	**1 021**	**1 799**	**1 862**	**1 799**	**1 911**	**6.2**	**100.0**

Trade Flows of Paper for Recycling in 2024 (Million Tonnes)

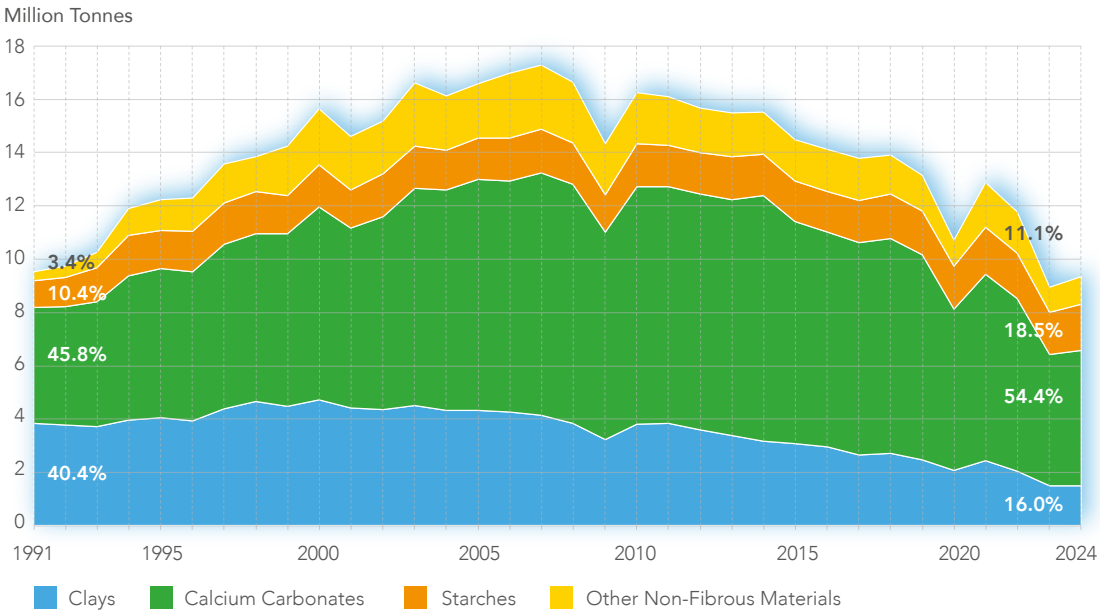


[1] Other Europe: total Europe excluding Cepi countries
[2] Source: Cepi, Fastmarkets.

Non-Fibrous Materials Consumption

'000 Tonnes	1991	2000	2010	2020	2023	2024	% Change 2024/2023	% Share of Total
Clays (coating and filler)	3 842	4 719	3 828	2 081	**1 488**	**1 494**	**0.4**	**16.0**
Calcium Carbonates (coating and filler)	4 349	7 250	8 906	6 044	**4 930**	**5 086**	**3.2**	**54.4**
Starches (native and modified)	989	1 561	1 603	1 619	**1 595**	**1 731**	**8.6**	**18.5**
Other Non-Fibrous Materials	341	2 095	1 897	957	**947**	**1 042**	**10.1**	**11.1**
Non Fibrous Materials	**9 521**	**15 626**	**16 235**	**10 701**	**8 959**	**9 353**	**4.4**	**100.0**

Non-Fibrous Materials Consumption



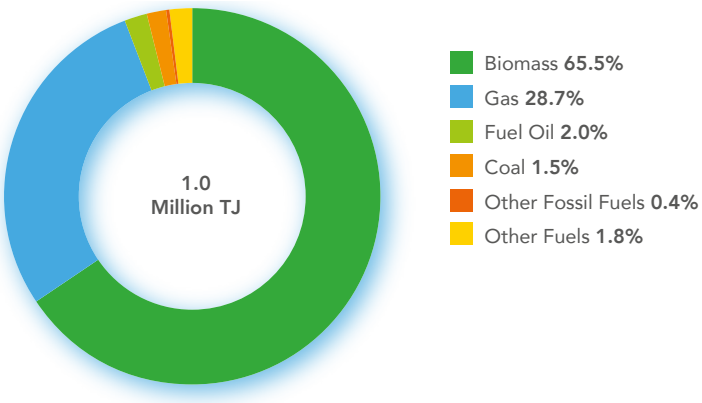
Primary Energy and Electricity Consumption[1]

Primary Energy Consumption TJ	1991	2000	2010	2020	2022	2023	% Change 2023/2022	% Share of Total[3]
Gas	259 593	404 946	489 565	373 840	**354 446**	**298 712**	**-15.7**	**25.7**
Fuel Oil	129 461	90 914	37 856	17 292	**20 119**	**20 575**	**2.3**	**1.8**
Coal	113 867	59 304	53 280	31 930	**25 263**	**16 103**	**-36.3**	**1.4**
Other Fossil Fuels	10 134	19 052	14 529	8 925	**9 253**	**4 533**	**-51.0**	**0.4**
Biomass	413 248	562 865	677 569	694 243	**700 498**	**681 288**	**-2.7**	**58.6**
Others	3 560	4 151	8 948	23 116	**12 822**	**19 085**	**48.8**	**1.6**
Total Fuels Consumption	**929 863**	**1 141 232**	**1 281 746**	**1 149 346**	**1 122 401**	**1 040 297**	**-7.3**	**89.5**
Net Bought Electricity	**205 852**	**246 864**	**202 945**	**148 251**	**140 113**	**122 053**	**-12.9**	**10.5**
Total Primary Energy Consumption	**1 135 715**	**1 388 096**	**1 484 691**	**1 297 596**	**1 262 514**	**1 162 350**	**-7.9**	**100.0**
Fraction of Biomass in Total Fuels Consumption	**44.4%**	**49.3%**	**52.9%**	**60.4%**	**62.4%**	**65.5%**	**3.1**	

Electricity Consumption GWh	1991	2000	2010	2020	2022	2023	% Change 2023/2022	% Share of Total
Total Electricity Produced at Site	29 416	41 930	56 780	49 900	**47 820**	**42 257**	**-11.6**	**55.5**
Purchased Electricity	59 045	72 255	67 567	52 485	**49 231**	**43 629**	**-11.4**	**57.3**
Sold Electricity	-1 864	-3 681	-11 193	-11 305	**-10 311**	**-9 725**	**-5.7**	**12.8**
Total Electricity Consumption	**86 597**	**110 504**	**113 153**	**91 081**	**86 741**	**76 160**	**-12.2**	**100.0**
% of Electricity produced through CHP[2]	**88.0%**	**90.4%**	**95.4%**	**95.7%**	**95.5%**	**95.4%**	**0.0**	

In 2023, 65% of fuels used in the pulp and paper industry came from biomass; large amount of that is process residues.

Fuels Consumption in 2023[1]



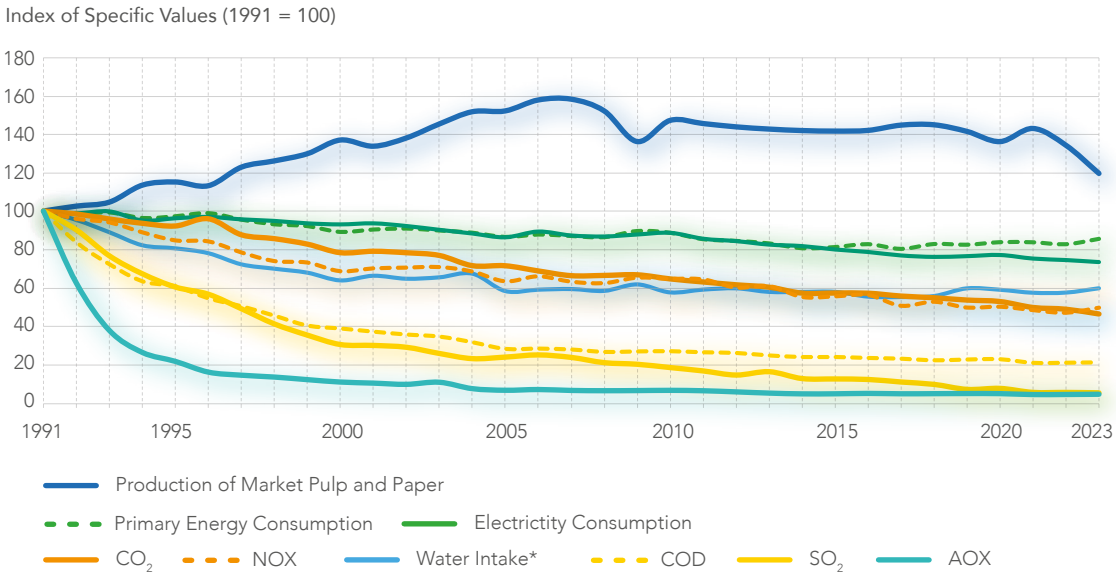
[1] Excluding Greece, Hungary , Romania and Slovenia - excluding Poland before 2003. 2024 data will be available in 2026.
[2] CHP: combined heat and power (compared to total on-site electricity generation).
[3] Share of total primary energy consumption (including net bought electricity).

Key Figures on Energy and Environment[1]

	1991	2000	2010	2020	2022	2023	% Change 2023/2022	% Change 2023/1991
Energy Consumption								
Production of Market Pulp and Paper & Board ('000 Tonnes)	71 971	98 691	106 084	98 098	**96 696**	**86 118**	**-10.9**	**19.7**
Specific Primary Energy Consumption (Tj/kt)	15.78	14.07	14.00	13.23	**13.06**	**13.50**	**3.4**	**-14.5**
Specific Electricity Consumption (GWh/kt)	1.20	1.12	1.07	0.93	**0.90**	**0.88**	**-1.4**	**-26.4**
Direct CO_2 Emissions[2]								
Absolute (Mega Tonnes)	39.05	41.94	37.99	29.00	**26.54**	**22.47**	**-15.3**	**-42.5**
Specific (kt CO_2 / kt of product)	0.54	0.42	0.35	0.29	**0.27**	**0.25**	**-5.1**	**-53.6**
Indirect CO_2 Emissions[3]								
Absolute (Mega Tonnes)	13.88	14.33	11.59	8.27	**10.09**	**8.69**	**-13.8**	**-37.4**
Specific (kt CO_2 / kt of product)	0.19	0.15	0.11	0.08	**0.10**	**0.10**	**-3.3**	**-47.7**
Water Specific Emissions								
COD (kg / T of product)	23.36	9.08	6.32	5.34	**4.92**	**4.96**	**0.9**	**-78.8**
AOX (kg / T of product)	0.433	0.049	0.030	0.023	**0.021**	**0.021**	**2.5**	**-95.1**
Air Specific Emissions								
SO_2 (kg S / T of product)	1.32	0.40	0.24	0.10	**0.07**	**0.07**	**-3.5**	**-94.6**
NOx (kg NOx / T of product)	1.31	0.90	0.85	0.66	**0.62**	**0.65**	**5.5**	**-50.0**

[1] Excluding Greece, Hungary , Romania & Slovenia - excluding Poland before 2003. 2024 data will be available in 2026.
[2] Including all Cepi countries from 2005. Direct CO_2 Emissions: fossil emissions produced by the pulp and paper mills and connected energy plants.
[3] Indirect CO_2 emissions: CO_2 emissions from net bought electricity, calculated as "net bought electricity" multiplied by the "electricity emissions factor" applied in each country.

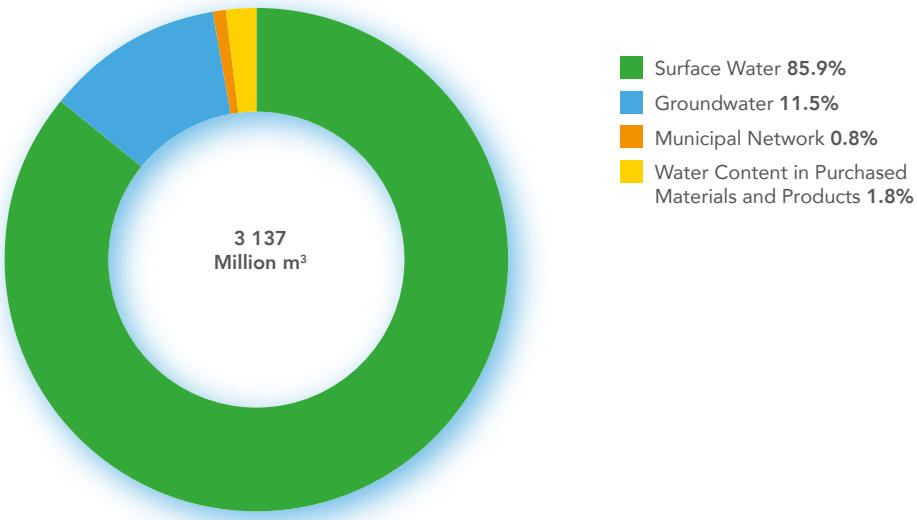
Evolution of Environmental Impacts[1]



Water Emissions: COD (Chemical Oxygen Demand) - AOX
Air Emissions: CO_2 - NOX (Azote Oxydes) - SO_2

*Water Intake: Due to the change in data collection system in one country, 2019 data on water can't be compared to 2018 data.

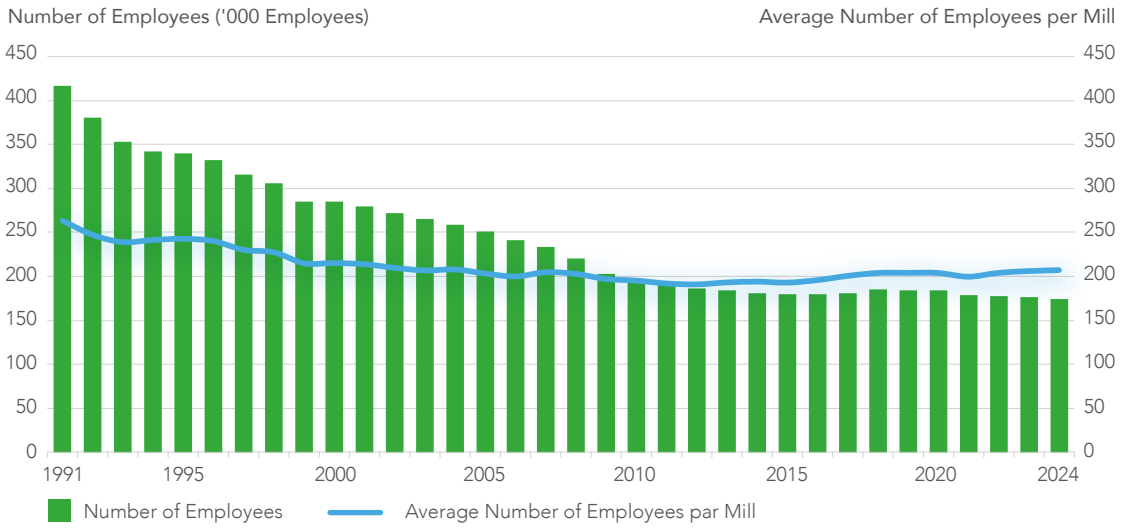
Sources of Water Intake in 2023[1]



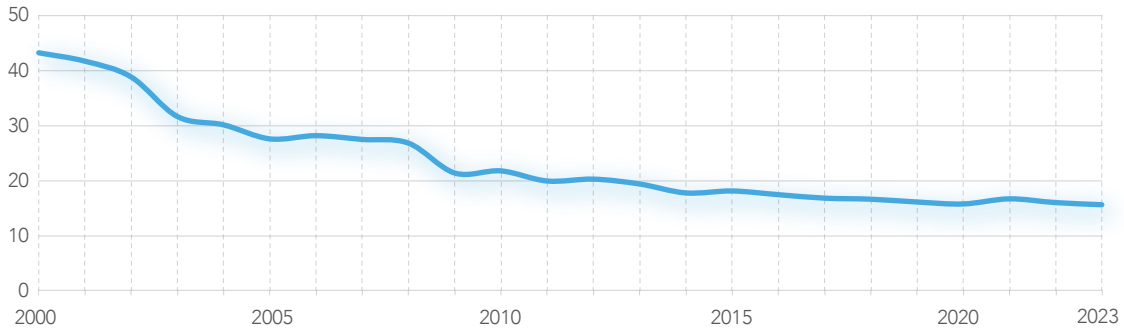
In 2023, around 90% of water abstracted to produce paper and board has been returned to its source after treatment.

[1] Excluding Greece, Hungary , Romania and Slovenia - excluding Poland before 2003. 2024 data will be available in 2026.

Employment Evolution



Accident Rate[1]



[1] Accident rate: Number of accidents (fatal and non-fatal) x 1000/number of employees (absence of more than 3 days)
Include Austria, Finland, France, Germany, Italy, Netherlands, Norway, Portugal, Spain, Sweden, United Kingdom
Data for 2024 will be available in 2026.

Pulp

Pulp Consumption: Production + Imports from outside Cepi - Exports to outside Cepi.
Integrated Pulp Production: Integrated pulp is produced for use as raw material in the production of paper at the same mill, or for shipment by a producing mill to other mills, which it owns, controls or with which it is affiliated within the same country and therefore not sold on the open market.

Pulp Grades

Mechanical - Stone groundwood: pulp produced by grinding wood into relatively short fibres.
Cepi Harmonised Code is 923 000 000.
Semi-chemical: pulp produced in a two-stage process which involves partial digestion with chemicals, followed by mechanical treatment in a disc refiner. Cepi Harmonised Code is 921 000 000.
Chemical - Sulphite: pulp produced by cooking wood chips in a pressure vessel in the presence of bisulphite liquor.
Cepi Harmonised Code is 922 200 000.
Chemical - Sulphate (or kraft): pulp produced by cooking wood chips in pressure vessels in the presence of a sodium hydroxide (soda) liquor. Cepi Harmonised Code is 922 100 000.
Other Pulp: Pulp produced from fibres other than wood, such as sugar cane bagasse, wheat straw, kenaf, cotton rags and hemp.

Paper and Board

Paper and Board Consumption: Production + Imports from outside Cepi - Exports to outside Cepi.

Paper and Board Grades

Newsprint: paper mainly used for printing newspapers. Cepi Harmonised Code is 100 000 000.
Uncoated mechanical: paper suitable for printing or other graphic purposes where less than 90% of the fibre furnish consists of chemical pulp fibres. Cepi Harmonised Code is 211 000 000.
Uncoated woodfree: paper suitable for printing or other graphic purposes, where at least 90% of the fibre furnish consists of chemical pulp fibres. Cepi Harmonised Code is 231 000 000.
Coated papers: all paper suitable for printing or other graphic purposes and coated on one or both sides with minerals such as china clay (kaolin), calcium carbonate, etc.
Cepi Harmonised Code for Coated Mechanical is 212 000 000 and for Coated Woodfree is 232 000 000.
Tissue Paper: This covers a wide range of tissue and other hygienic papers for use in households or commercial and industrial premises. Cepi Harmonised Code is 700 000 000.
Also known as sanitary and household, hygiene paper.
Containerboard: papers and boards mainly used in the manufacture of corrugated board.
Included are kraftliner, testliner, semi-chemical fluting, and waste-based fluting (Wellenstoff).
Also known as case materials, corrugated case materials, cardboard, linerboard or corrugating medium.
Cepi Harmonised Code is 300 000 000.
Cartonboard: made from virgin and/or recovered fibres, mainly used in cartons for consumer products.
Also known as solid board, folding box board, boxboard or carrier board. Cepi Harmonised Code is 400 000 000.
Wrappings: papers whose main use is wrapping or packaging made from any combination of virgin or recovered fibres, bleached or unbleached. Included are sack kraft, other wrapping krafts, sulphite and grease-proof papers.
Cepi Harmonised Code is 500 000 000.
Other paper and board for packaging: this category embraces all paper and board mainly for packaging purposes other than those listed above. Cepi Harmonised Code is 600 000 000.
Other paper and board: includes cigarette papers and filter papers, as well as gypsum liners and special papers for waxing, insulating, roofing, asphalting, and other specific applications or treatments. Cepi Harmonised Code is 800 000 000.

Paper for Recycling

Collection: Utilisation - Imports from outside Cepi + Exports to outside Cepi.
Utilisation rate: percentage of paper for recycling utilisation compared to the total paper & board production.
Recycling rate: utilisation of paper for recycling + net trade of paper for recycling , compared to paper & board consumption.
Utilisation by sector: total utilisation of paper for recycling in a sector as percentage of the overall utilisation of paper for recycling.

Wood

The wood used for pulp and paper manufacturing is mainly constituted of the following assortments: pulpwood (roundwood other than sawlogs, from silvicultural measures such as thinning or final felling), chips and residues from sawmills. The utilisation of sawlogs is very limited and sawdust volumes consumed are negligible. The relative shares of softwood and hardwood used depend on the country considered and the pulp and paper grades produced. The main softwood species used are pine and spruce. The main hardwood species used are birch, eucalyptus, beech and aspen. Oak is hardly used. The wood consumption figures reported by the pulp and paper companies and included in the Cepi statistics are the volumes of wood at the mill gates and come from domestic supply or imports.

More information can be found in the Cepi booklet Pulp and paper industry - definitions and concepts available on Cepi's website.
https://www.cepi.org/definitions-and-concepts-in-the-pulp-and-paper-industry-statistics/



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