

Key Statistics 2010

European Pulp and Paper Industry



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Introduction

Welcome to the latest issue of CEPI's Key Statistics, covering data for 2010. This booklet contains the key statistics necessary to give a picture of the performance of the European Pulp and Paper Industry in 2010.

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

Extra statistical information is accessible online for members on **www.cepi.org** under the Members Only section. Some extra statistical information is also available to non-Members by subscription.

CEPI was founded in 1992 and annual statistics cover the period 1991–2010. CEPI represents 95% of the European pulp and paper industry in terms of production.

The Confederation of European Paper Industries (CEPI) is a Brussels-based non-profit making organisation, which represents the European pulp and paper industry towards the European Institutions. Through its member associations, CEPI also represents some 550 pulp, paper and board producing companies across Europe, ranging from small and medium-sized enterprises, to multinationals.

Members of CEPI in 2010

Austria, Belgium, Czech Republic, Finland, France, Germany, Hungary, Italy, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia (New Member with data from 1991 to 2010), Spain, Sweden, Switzerland, The Netherlands, United Kingdom.

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CEPI Key Figures

Pulp and Paper Industry

	1991	2000	2005	2009	2010	% Change 2010/2009	% Change 2010/2000
INDUSTRY STRUCTURE							
Number of Companies	1 052	948	850	711	683	-3.9	-28.0
Number of Mills	1 601	1 335	1 245	1 029	998	-3.0	-25.2
Pulp	300	237	221	177	173	-2.3	-27.0
Paper	1 301	1 098	1 024	852	825	-3.2	-24.9
Number of Paper Machines	2 232	1 896	1 757	1 464	1 413	-3.5	-25.5
Employment	435 400	305 900	279 520	229 569	224 129	-2.4	-26.7
Turnover ¹ (Million EUROS)	n.a.	81 164	76 509	70 739	80 671	14.0	-0.6
Investments ¹ (Million EUROS)	n.a.	5 507	5 285	n.a.	n.a.		
Added Value ¹ (Million EUROS)	n.a.	24 196	17 633	n.a.	n.a.		
ENERGY²							
Total Fuels Consumption (Tj)	941 075	1 153 204	1 278 732	1 180 706	n.a.		
Biomass Use (%) of Total FC	47.9%	51.6%	52.3%	54.9%	n.a.		
Electricity Consumption (GWh)	88 047	112 865	115 838	102 049	n.a.		
PULPWOOD ('000 m³)							
Consumption	121 347	150 192	151 701	136 419	147 374	8.0	
From Domestic Origin	105 858	120 516	120 361	112 658	117 891	4.6	
From Imports	15 489	29 676	31 340	23 761	29 484	24.1	
Imports/Consumption	12.8%	19.8%	20.7%	17.4%	20.0%	2.6	
PULP ('000 Tonnes)							
Capacity	39 867	44 117	47 522	43 888	44 372	1.1	0.6
Operating Rate	85.6%	91.1%	88.1%	82.3%	88.3%	6.0	-2.9
Production of Market Pulp	9 465	11 579	13 257	11 636	12 704	9.2	9.7
Production of All Pulp	34 135	40 207	41 865	36 120	39 169	8.4	-2.6
Exports to Outside CEPI	n.a.	1 054	1 835	2 375	2 303	-3.0	
Imports from Outside CEPI	n.a.	8 002	8 003	7 223	8 011	10.9	
Consumption	38 452	46 996	49 322	42 317	46 253	9.3	-1.6
PAPER & BOARD ('000 Tonnes)							
Capacity	74 615	99 509	111 601	104 940	105 418	0.5	5.9
Operating Rate	88.9%	93.1%	89.6%	85.1%	91.6%	6.5	-1.5
Production	66 312	92 603	100 011	89 286	96 529	8.1	4.2
Exports to Outside CEPI	n.a.	12 963	16 745	14 992	16 905	12.8	
Imports from Outside CEPI	n.a.	5 447	4 953	4 498	4 467	-0.7	
Consumption	63 047	85 995	89 803	81 177	85 496	5.3	-0.6
RECOVERED PAPER ('000 Tonnes)							
Collection*	26 025	44 878	54 311	56 701	57 137	0.8	27.3
Utilisation	25 942	42 068	47 684	45 369	48 972	7.9	16.4
Exports to Outside CEPI	n.a.	3 563	7 558	12 488	9 385	-24.9	163.4
Exports/Collection	n.a.	7.9%	13.9%	22.0%	16.4%	-5.6	8.5
Imports from Outside CEPI	n.a.	753	931	1 156	1 220	5.5	62.1
Imports/Utilisation	n.a.	1.8%	2.0%	2.5%	2.5%	-0.1	0.7
Utilisation Rate*	39.1%	45.4%	47.7%	50.8%	50.7%	-0.1	5.3
RECYCLING RATE IN EUROPE³							
Recycling Rate*	40.3%	51.8%	62.1%	72.3%	68.9%	-3.4	17.1

¹ 2007: Turnover: 82 803 – Investments: 5 343 – Added Value: 18 869

² Hungary, Romania and Slovenia are not included in Energy data

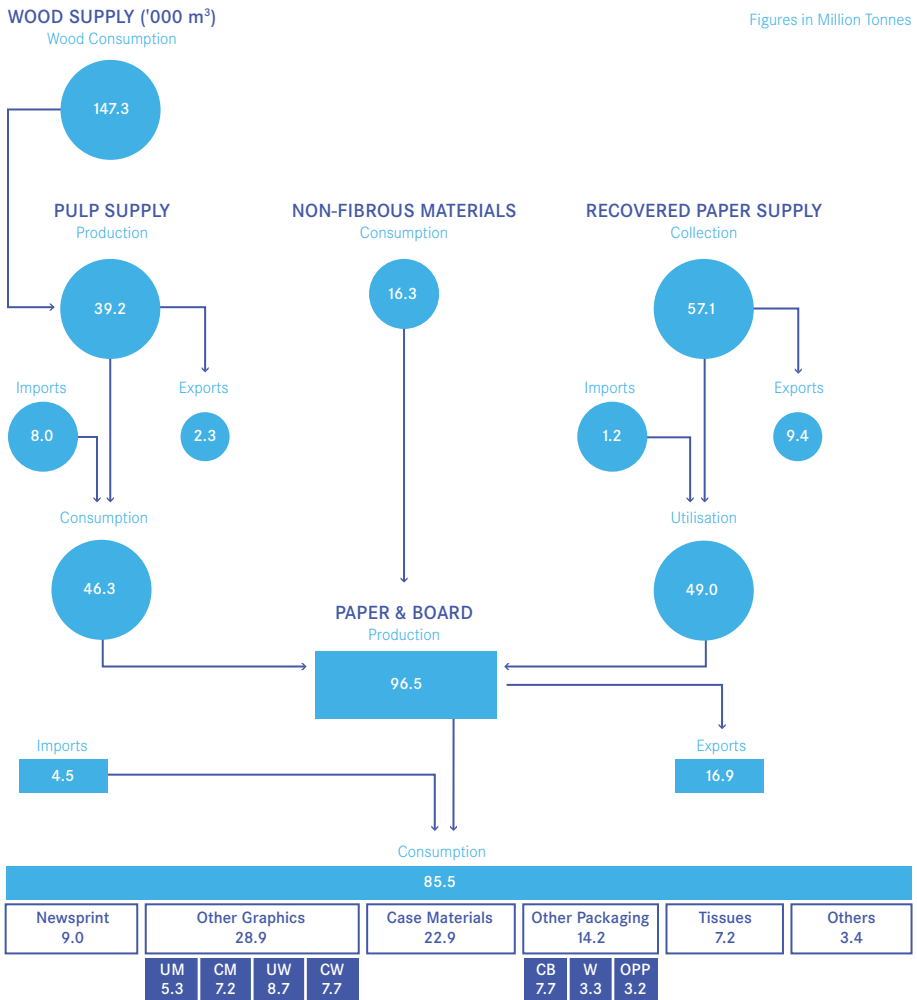
³ Europe means EU-27 countries plus Norway and Switzerland

* See Definitions on Page 28

From Raw Materials to Paper

Pulp and Paper Industry in 2010

Figures in Million Tonnes



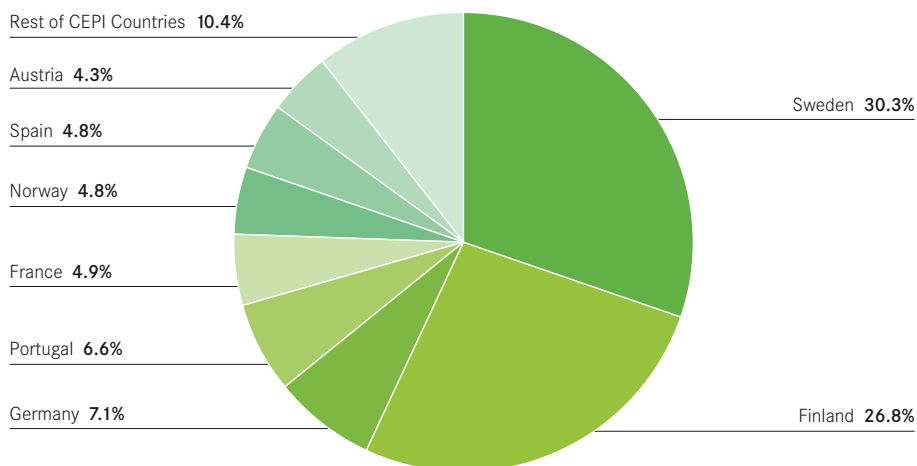
Paper Consumption = Domestic Deliveries + Imports from Other CEPI Countries + Imports from Countries Outside CEPI
 UM = Uncoated Mechanical - CM = Coated Mechanical - UW = Uncoated Woodfree - CW = Coated Woodfree
 CB = Carton Board - W = Wrappings - OPP = Other Paper & Board for Packaging

Pulp – Production and Consumption

CEPI Pulp Production and Consumption 2009–2010

'000 Tonnes	PRODUCTION			CONSUMPTION		
	2009	2010	% Change 2010/2009	2009	2010	% Change 2010/2009
Mechanical & Semi-Chemical Pulp	11 129	12 139	9.1	11 272	12 375	9.8
Sulphite Pulp	2 038	2 166	6.3	1 790	1 928	7.7
Sulphate Pulp	22 369	24 275	8.5	28 044	30 756	9.7
Chemical Pulp	24 407	26 442	8.3	29 834	32 685	9.6
WOODPULP FOR PAPERMAKING	35 536	38 581	8.6	41 106	45 060	9.6
OTHER PULP	584	588	0.7	1 211	1 193	-1.5
TOTAL PULP	36 120	39 169	8.4	42 317	46 253	9.3

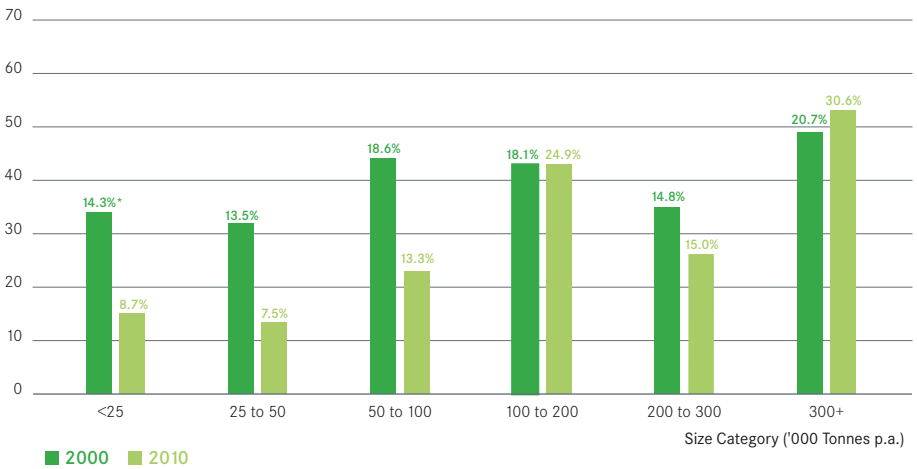
CEPI Pulp Production by Country in 2010



Pulp - Industry

Number of Pulp Mills by Volume in CEPI 2000 and 2010

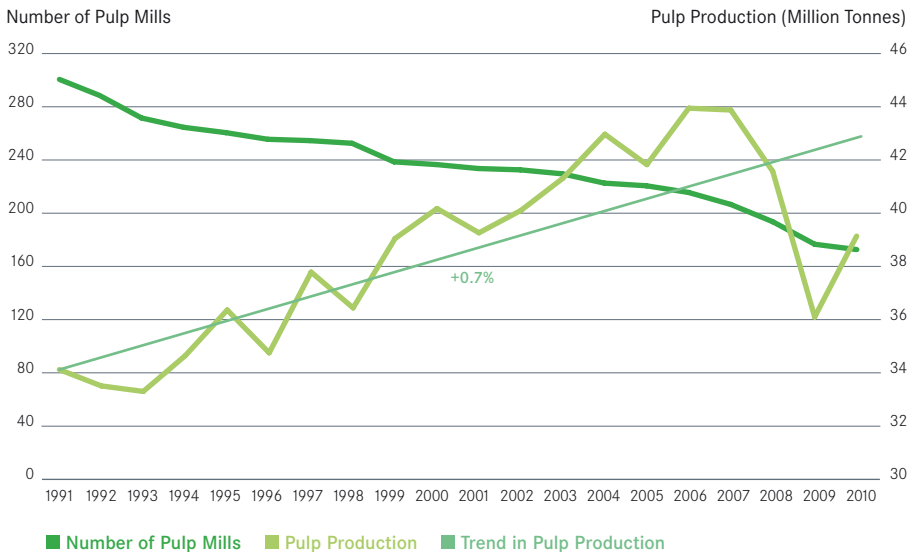
Number of Pulp Mills



* Share of Total Number of Mills

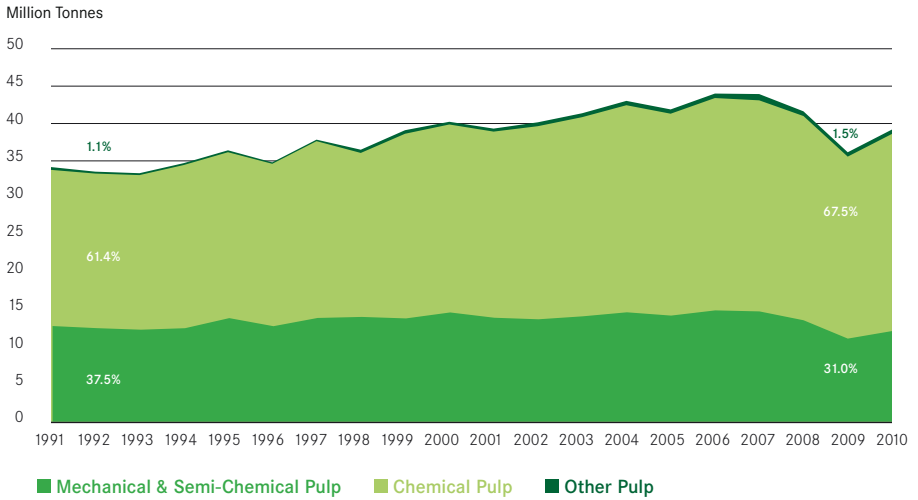
Note: Figures for some countries have been estimated by CEPI

Number of Pulp Mills and Pulp Production in CEPI 1991-2010

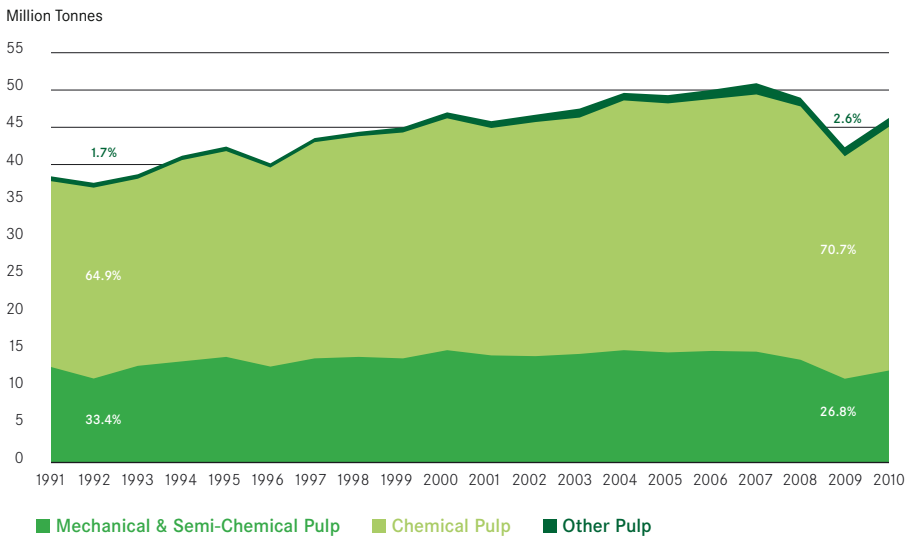


Pulp – Production and Consumption by Grade

CEPI Pulp Production by Grade 1991–2010

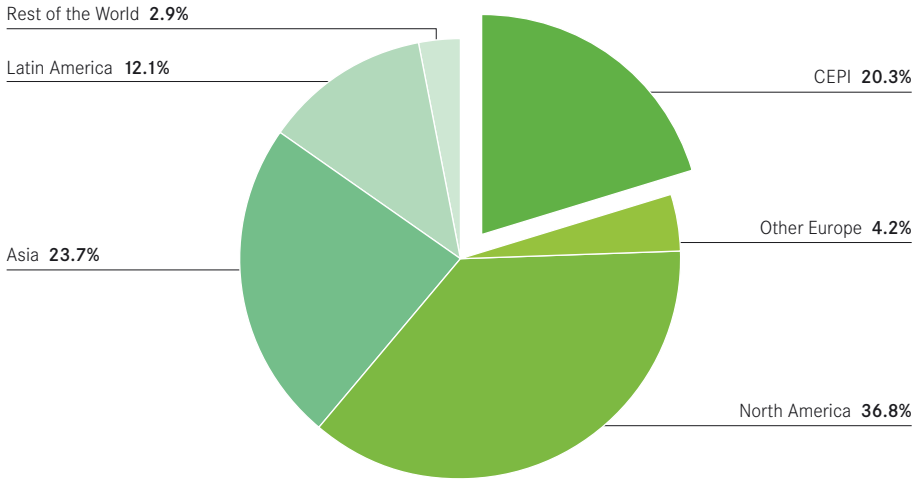


CEPI Pulp Consumption by Grade 1991–2010



Pulp – Production and Consumption – Global View

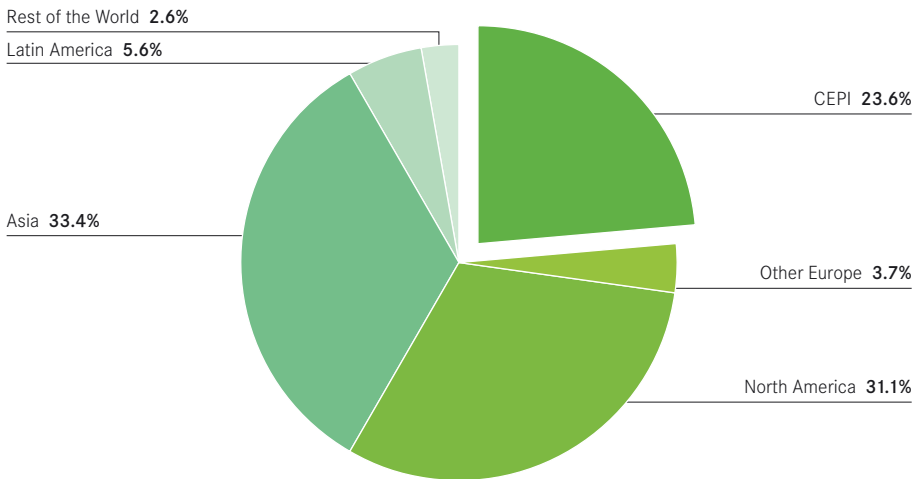
Pulp Production by Region in 2009



TOTAL: 178.0 Million Tonnes
% change over previous year: -7.3

Sources: CEPI, RISI

Pulp Consumption by Region in 2009



TOTAL: 179.0 Million Tonnes
% change over previous year: -6.4

Sources: CEPI, RISI

Pulp – Exports and Imports

CEPI Exports of Pulp to Other Regions 2006–2010

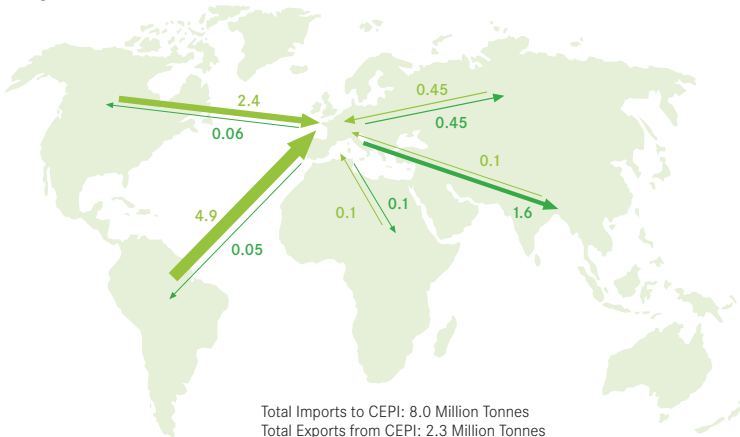
'000 Tonnes	2006	2007	2008	2009	2010	Share of Total %	% Change 2010/2009
Other Europe	402	415	433	355	452	19.6	27.3
North America	195	155	42	31	62	2.7	99.1
Latin America	23	29	35	53	49	2.1	-7.5
Asia	1 330	1 196	1 287	1 793	1 597	69.3	-10.9
Rest of the World	125	104	162	143	142	6.2	-0.1
Total	2 075	1 899	1 959	2 375	2 303	100.0	-3.0

CEPI Imports of Pulp from Other Regions 2006–2010

'000 Tonnes	2006	2007	2008	2009	2010	Share of Total %	% Change 2010/2009
Other Europe	479	428	453	319	448	5.6	40.5
North America	3 653	3 205	2 806	2 308	2 373	29.6	2.8
Latin America	3 423	4 134	4 416	4 345	4 907	61.3	12.9
Asia	149	147	175	108	135	1.7	24.4
Rest of the World	354	302	139	143	148	1.8	3.1
Total	8 058	8 215	7 989	7 223	8 011	100.0	10.9

CEPI Trade Flows of Pulp in 2010

All Figures are Million Tonnes

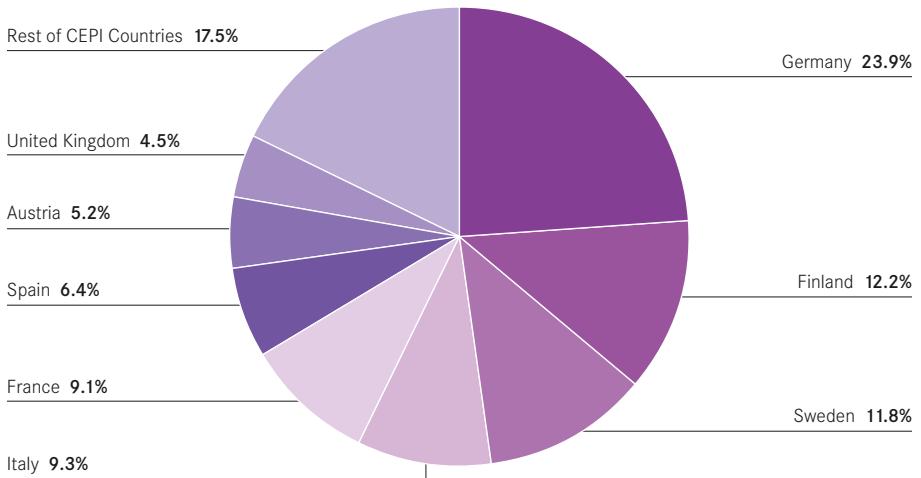


Paper & Board – Production and Consumption

CEPI Paper & Board Production and Consumption 2009–2010

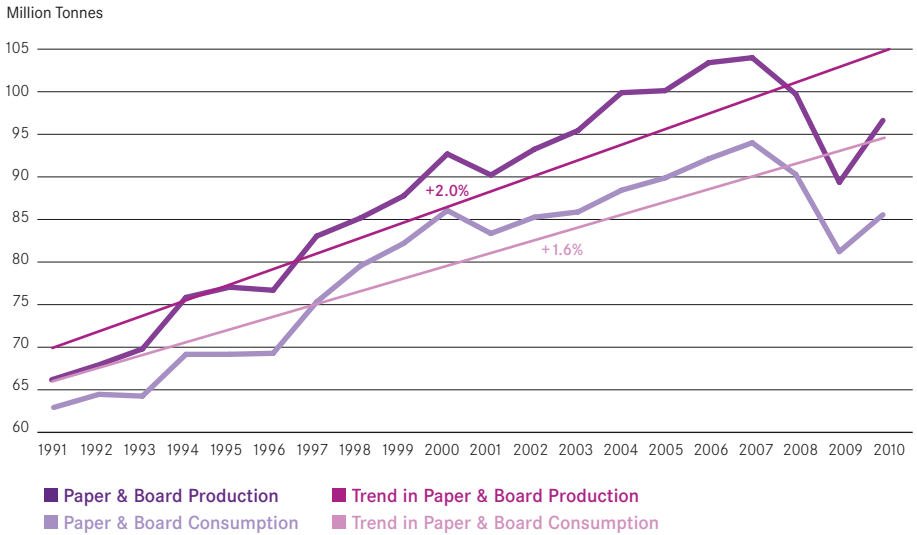
'000 Tonnes	PRODUCTION			CONSUMPTION		
	2009	2010	% Change 2010/2009	2009	2010	% Change 2010/2009
Newsprint	9 281	9 787	5.5	8 676	8 958	3.3
Uncoated Mechanical	6 323	6 495	2.7	5 341	5 263	-1.5
Coated Mechanical	7 722	8 918	15.5	6 725	7 187	6.9
Uncoated Woodfree	9 348	9 903	5.9	8 542	8 733	2.2
Coated Woodfree	8 085	8 977	11.0	7 291	7 678	5.3
Other Graphic Papers	31 477	34 293	8.9	27 899	28 862	3.5
TOTAL GRAPHIC PAPERS	40 758	44 080	8.2	36 575	37 820	3.4
HOUSEHOLD & SANITARY	6 567	6 724	2.4	7 092	7 176	1.2
Case Materials	22 735	24 926	9.6	21 570	22 864	6.0
Carton Board	7 925	8 499	7.2	6 902	7 703	11.6
Wrappings	3 797	4 139	9.0	3 040	3 336	9.7
Other Paper & Board for Packaging	3 561	3 901	9.5	2 867	3 164	10.4
TOTAL PACKAGING PAPERS	38 018	41 466	9.1	34 379	37 067	7.8
OTHER PAPERS	3 943	4 259	8.0	3 131	3 433	9.7
TOTAL PAPER & BOARD	89 286	96 529	8.1	81 177	85 496	5.3

CEPI Paper & Board Production by Country in 2010

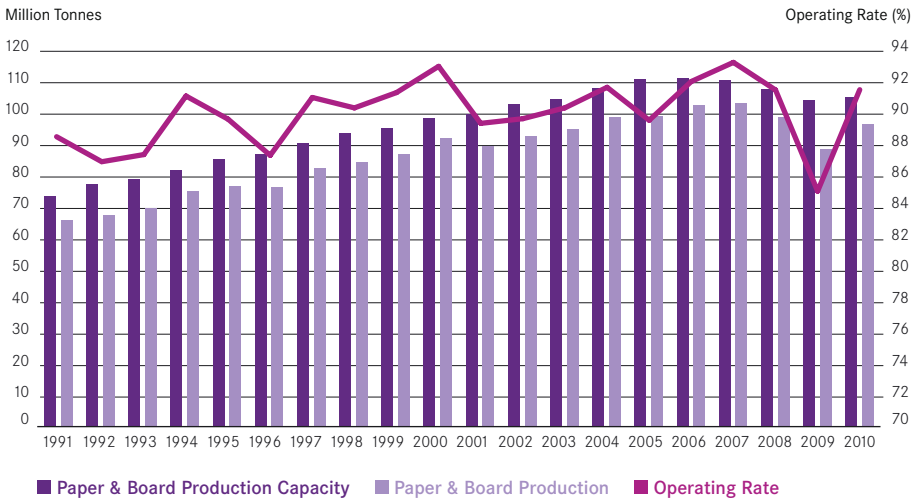


Paper & Board – Production and Production Capacity

CEPI Paper & Board Production and Consumption 1991–2010



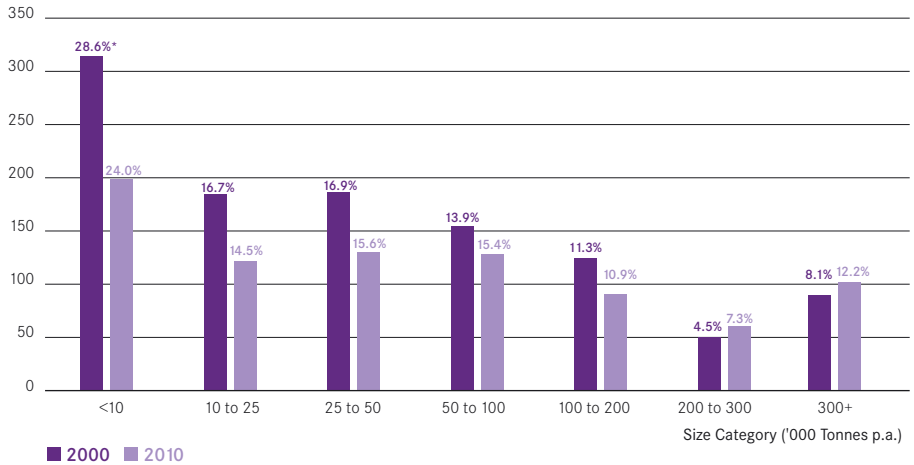
CEPI Paper & Board Production and Paper & Board Production Capacity 1991–2010



Paper & Board – Industry

Number of Paper & Board Mills by Volume in CEPI 2000 and 2010

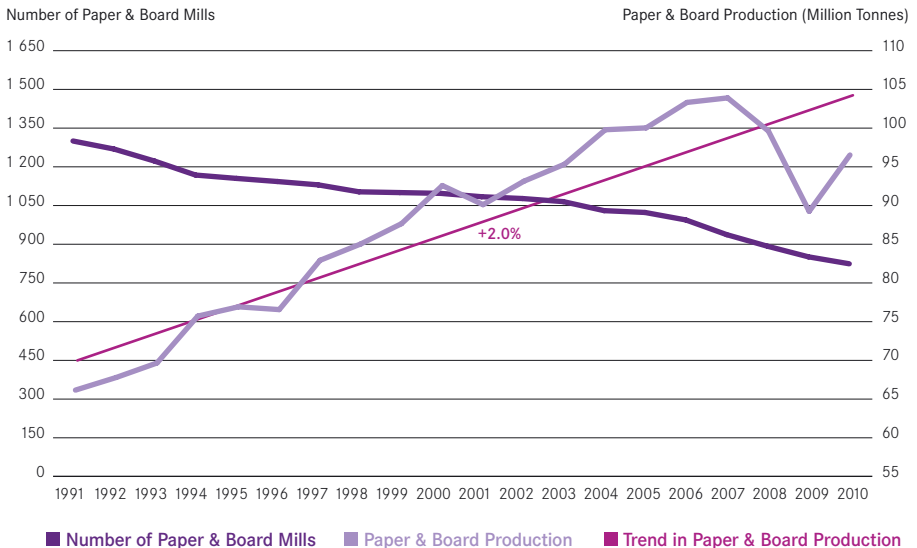
Number of Paper & Board Mills



* Share of Total Number of Mills

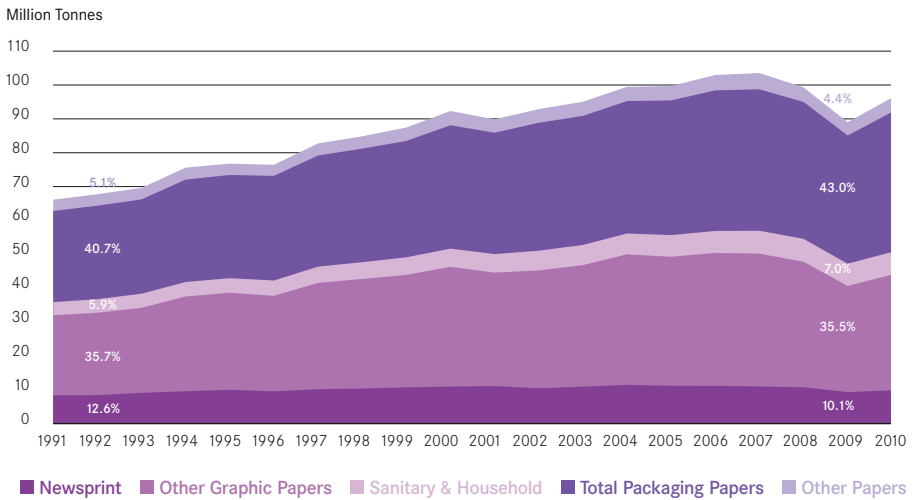
Note: Figures for some countries have been estimated by CEPI

Number of Paper & Board Mills and Paper & Board Production in CEPI 1991-2010

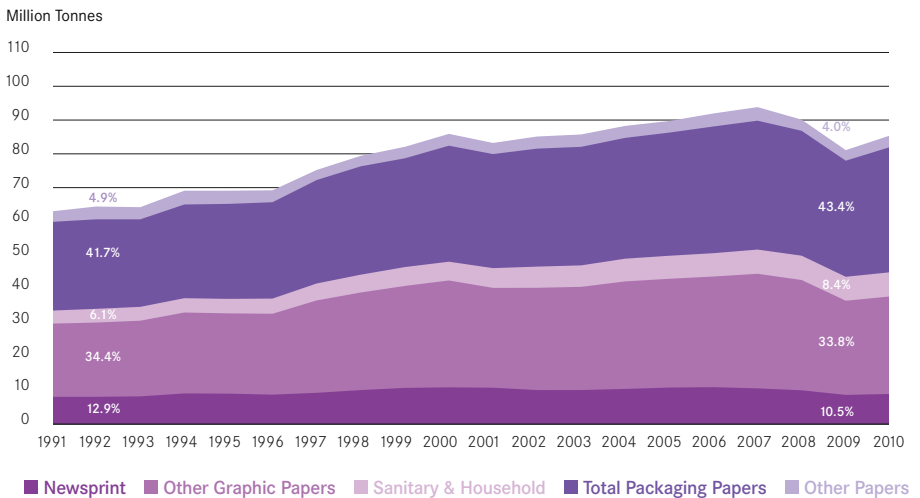


Paper & Board – Production and Consumption by Grade

CEPI Paper & Board Production by Grade 1991–2010

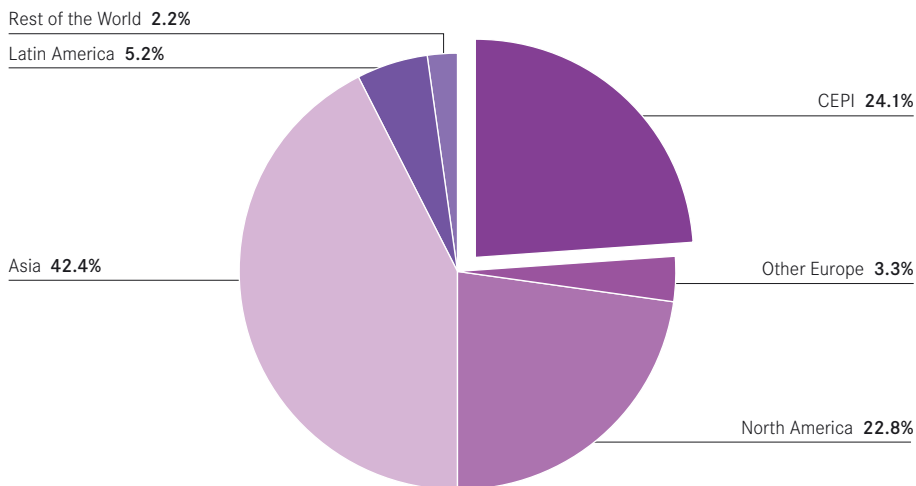


CEPI Paper & Board Consumption by Grade 1991–2010



Paper & Board – Production and Consumption – Global View

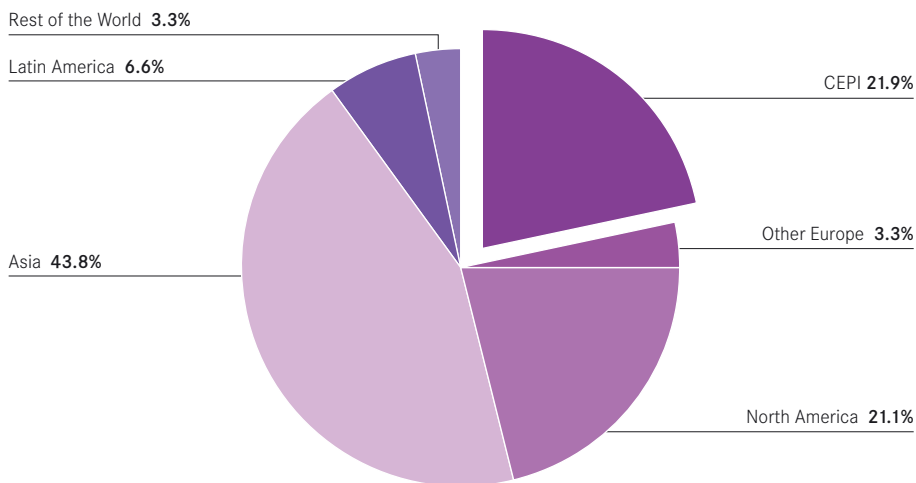
Paper & Board Production by Region in 2009



TOTAL: 370.7 Million Tonnes
% change over previous year: -5.2

Sources: CEPI, RISI

Paper & Board Consumption by Region in 2009



TOTAL: 370.8 Million Tonnes
% change over previous year: -5.6

Sources: CEPI, RISI

Paper & Board – Exports and Imports

CEPI Exports of Paper & Board to Other Regions 2006–2010

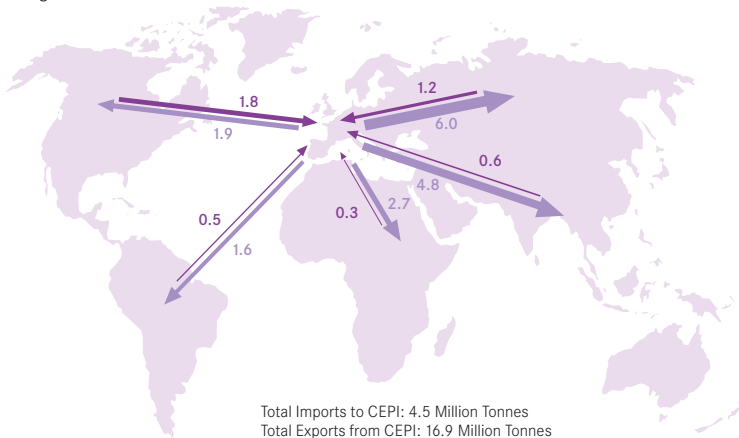
'000 Tonnes	2006	2007	2008	2009	2010	Share of Total %	% Change 2010/2009
Other Europe	6 129	6 389	6 238	5 320	5 994	35.5	12.7
North America	2 992	2 614	2 099	1 503	1 868	11.1	24.3
Latin America	1 449	1 479	1 379	1 077	1 590	9.4	47.7
Asia	4 600	4 711	4 727	4 798	4 801	28.4	0.1
Rest of the World	2 537	2 610	2 638	2 294	2 652	15.7	15.6
Total	17 706	17 803	17 081	14 992	16 905	100.0	12.8

CEPI Imports of Paper & Board from Other Regions 2006–2010

'000 Tonnes	2006	2007	2008	2009	2010	Share of Total %	% Change 2010/2009
Other Europe	1 388	1 366	1 448	1 292	1 210	27.1	-6.4
North America	1 613	2 219	2 062	1 768	1 827	40.9	3.4
Latin America	436	421	562	454	497	11.1	9.7
Asia	377	700	531	655	624	14.0	-4.7
Rest of the World	392	533	391	330	309	6.9	-6.6
Total	4 207	5 239	4 995	4 498	4 467	100.0	-0.7

CEPI Trade Flows of Paper & Board in 2010

All Figures are Million Tonnes

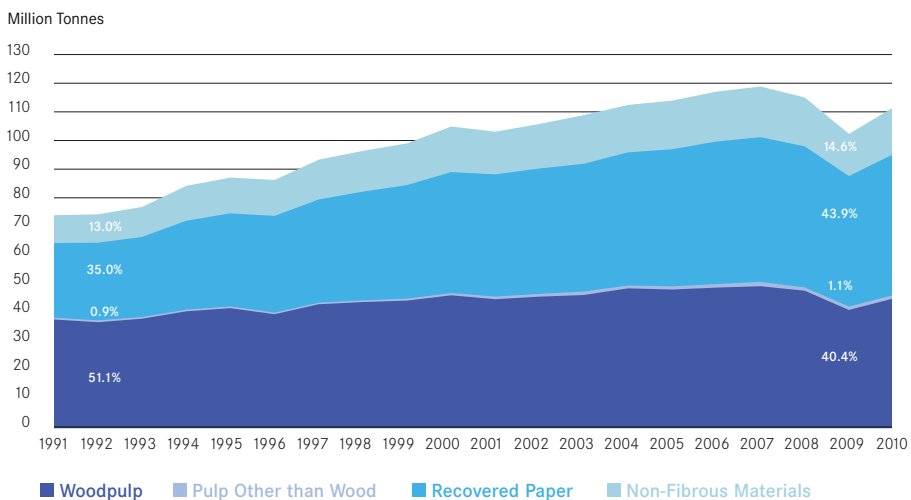


Raw Materials Summary

CEPI Raw Materials Use in Papermaking 1991–2010

'000 Tonnes	1991	2000	2005	2009	2010	Share of Total %	% Change 2010/2009	% Change 2010/2000
Woodpulp	37 799	46 200	48 208	41 106	45 060	40.4	9.6	-2.5
Pulp Other than Wood	653	796	1 114	1 211	1 193	1.1	-1.5	49.9
Recovered Paper	25 942	42 068	47 684	45 369	48 972	43.9	7.9	16.4
Non-Fibrous Materials	9 655	15 867	16 930	14 677	16 288	14.6	11.0	2.7
Total Raw Materials	74 049	104 931	113 936	102 363	111 514	100.0	8.9	6.3

CEPI Raw Materials Consumption 1991-2010

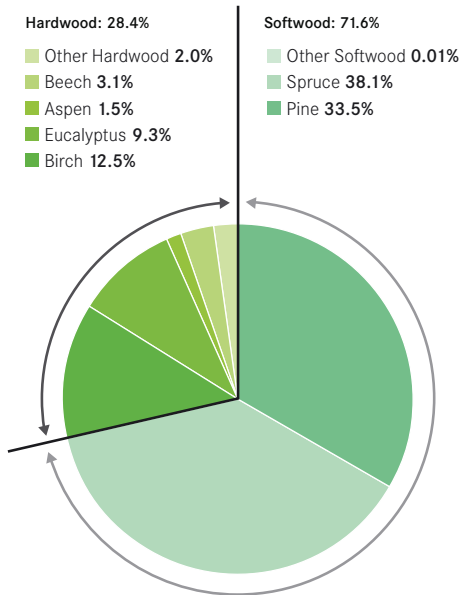


Pulpwood – Consumption by Species

CEPI Pulpwood Consumption 2009-2010

'000 m ³	2009	2010	% Change	% Share of Total
Total Softwood	98 767	108 228	9.6	73.4
Roundwood	68 715	74 691	8.7	50.7
Chips	30 052	33 537	11.6	22.8
Total Hardwood	37 652	39 146	4.0	26.6
Roundwood	36 142	37 474	3.7	25.4
Chips	1 510	1 672	10.7	1.1
Total Roundwood	104 857	112 165	7.0	76.1
Total Chips	31 562	35 209	11.6	23.9
Total	136 419	147 374	8.0	

Share in CEPI Wood Consumption by Species* in 2010

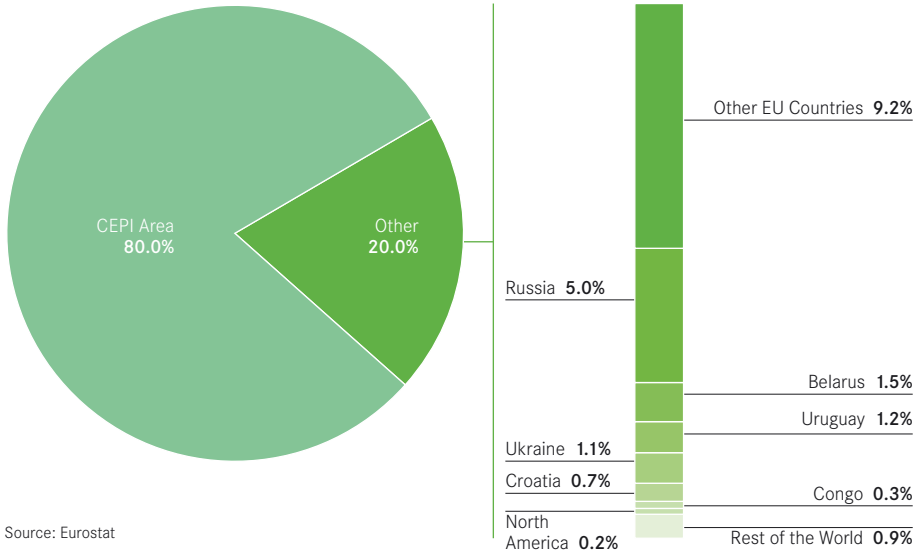


Total Wood Consumption: 147.4 Million m³

* Based on a sample representing 91% of total CEPI consumption

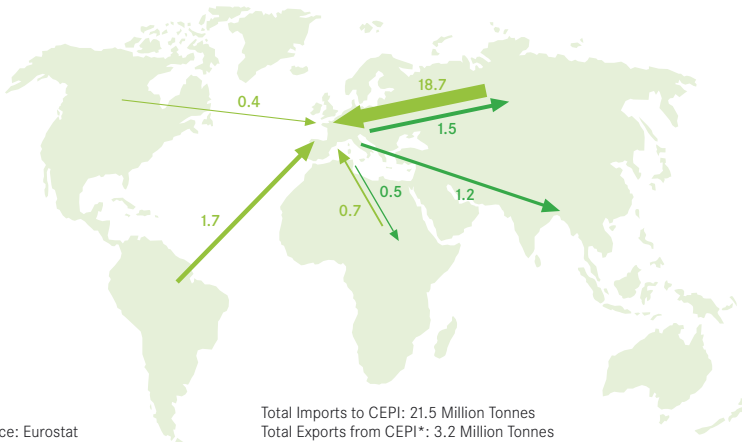
Pulpwood – Trade Flows and Wood Origin

CEPI Wood Consumption Origin in 2010



CEPI Trade Flows of Wood in 2010

Million Tonnes



* Norway and Switzerland are not included in exports

Recovered Paper - Utilisation by Sector

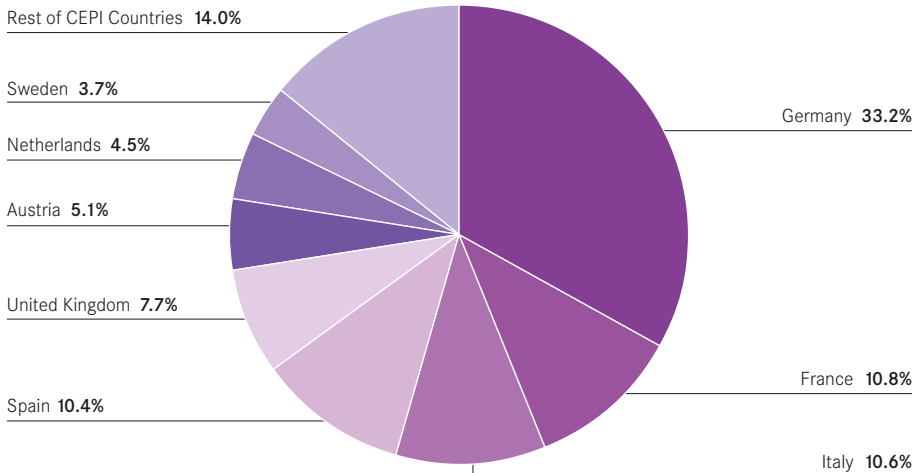
CEPI Recovered Paper Utilisation by Sector in 2010

Paper Sector '000 Tonnes	RECOVERED PAPER GRADES							E:G Utilisation Rate** %
	A Mixed Grades	B Corrugated and Kraft	C Newspapers & Magazines	D High Grades	E Total Use of Recovered Paper	F Usage by Sector* %	G Total Paper Production	
Newsprint	136	63	8 828	56	9 083	18.5	9 787	92.8
Other Graphic Papers	244	16	2 556	826	3 642	7.4	34 293	10.6
Total Newsprint + O.G.P.	380	79	11 384	881	12 725	26.0	44 080	28.9
Case Materials	4 645	17 662	216	861	23 384	47.7	24 926	93.8
Carton Board	1 861	571	317	892	3 641	7.4	8 499	42.8
Wrappings, Other Packaging Papers	1 680	1 876	120	524	4 200	8.6	8 041	52.2
Total Packaging Papers	8 187	20 109	653	2 276	31 226	63.8	41 466	75.3
Household & Sanitary	338	87	755	2 193	3 373	6.9	6 724	50.2
Other Papers	239	1 082	81	247	1 649	3.4	4 259	38.7
Total Paper & Board	9 144	21 357	12 873	5 598	48 972	100.0	96 529	50.7
Share of Total	18.7%	43.6%	26.3%	11.4%	100.0%			

* Usage by sector: total use of recovered paper in a sector as % of the total recovered paper used by the industry.

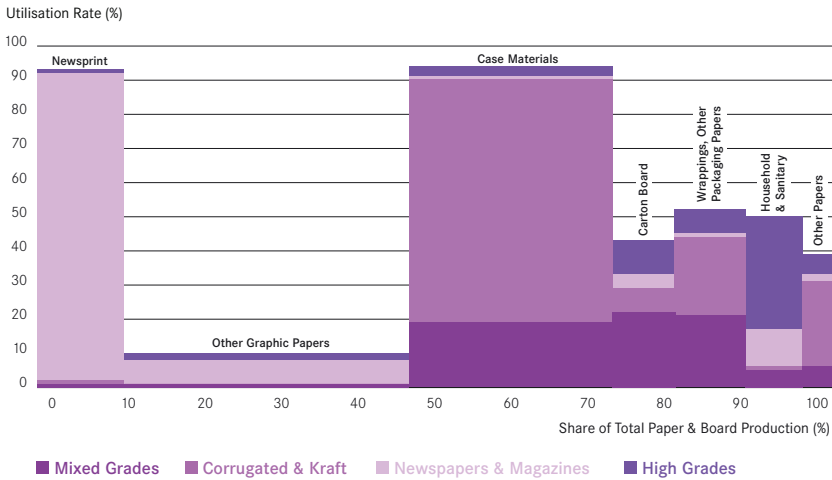
** Utilisation rate: use of recovered paper in a sector as % of total paper production in that sector. (See note on next page.)

CEPI Recovered Paper Utilisation by Country in 2010



Recovered Paper – Utilisation by Sector and Recovered Paper Grade

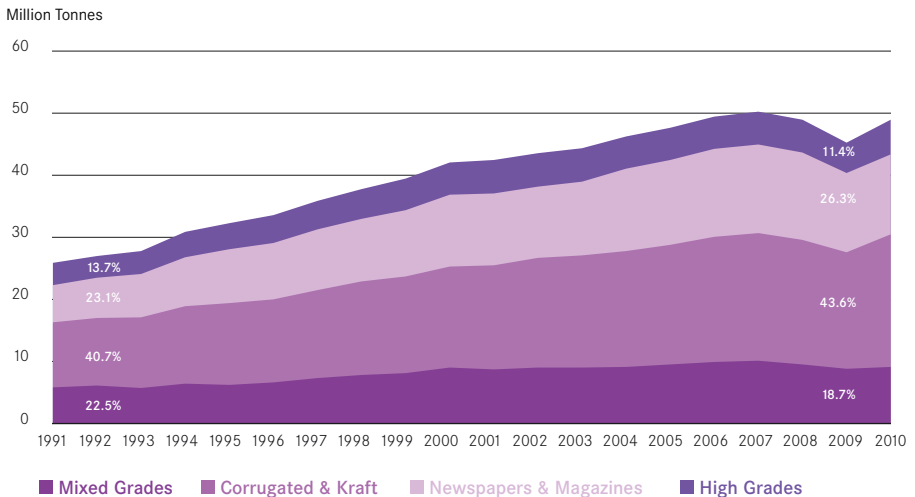
CEPI Recovered Paper Utilisation by Sector in 2010



For instance: case materials represent 26% of total paper and board production, have an utilisation rate of 94% and use 47.7% of total recovered paper volumes used by the industry.

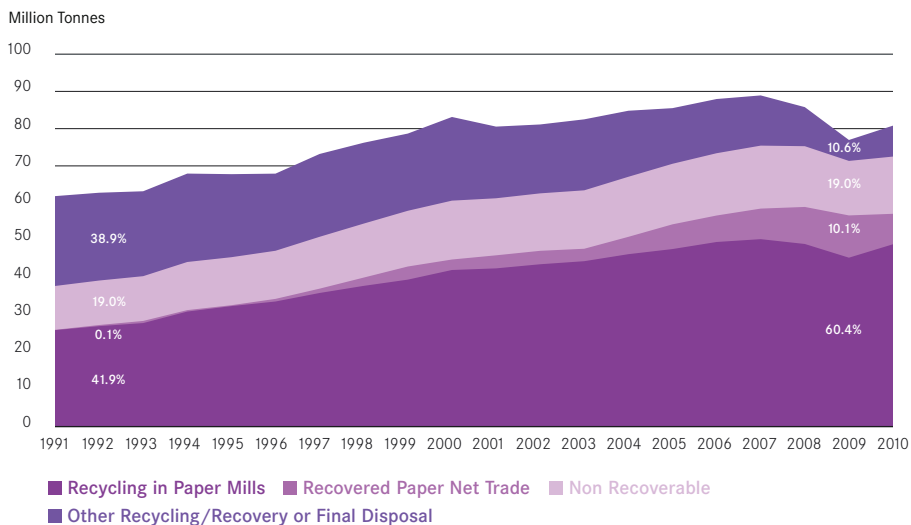
Important Note: Recovered paper is composed of fibres but also unusable materials – non-paper components as well as paper and board detrimental to production. The share of unusable materials depends on the actual sorting and collection of used paper. It varies according to recovered paper grades and countries. The volume of recycled fibres actually used to produce new paper is therefore lower than the volume of recovered paper considered. The utilisation rate compares recovered paper utilisation to paper production.

CEPI Recovered Paper Utilisation by Recovered Paper Grade 1991–2010

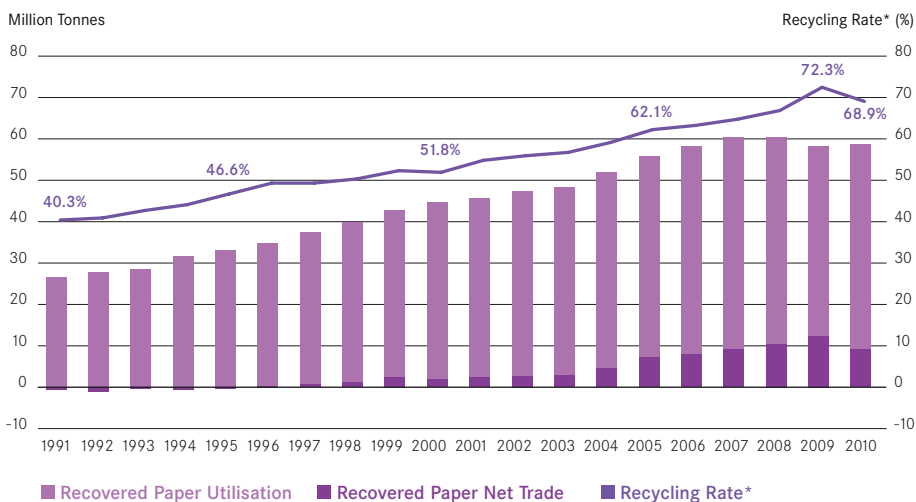


Recovered Paper – Utilisation and Recycling Rate

CEPI Paper Consumption and Recovery 1991–2010



Recovered Paper Utilisation, Net Trade and Recycling Rate* in Europe¹ 1991–2010



*Recycling Rate = "Recovered Paper Utilisation + Net Trade", compared to Paper & Board Consumption

¹ Europe means EU-27 countries plus Norway and Switzerland

Recovered Paper – Exports and Imports

CEPI Exports of Recovered Paper to Other Regions 2006–2010

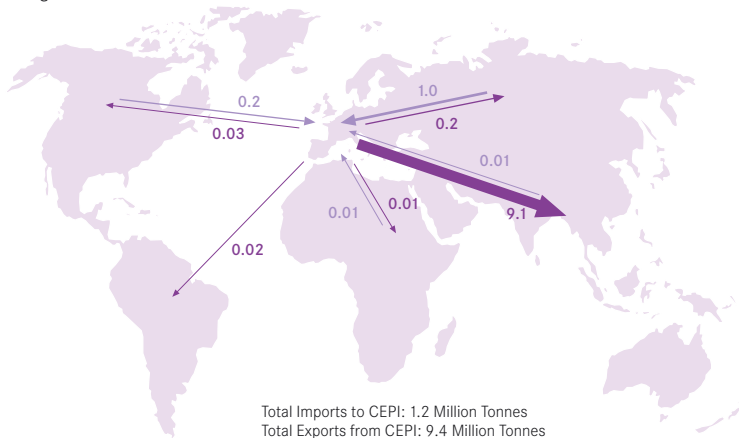
'000 Tonnes	2006	2007	2008	2009	2010	Share of Total %	% Change 2010/2009
Other Europe	237	264	199	164	206	2.2	25.5
North America	26	60	96	29	27	0.3	-6.9
Latin America	1	29	45	12	21	0.2	83.4
Asia	7 728	8 903	10 633	12 208	9 117	97.1	-25.3
Rest of the World	180	147	81	76	14	0.1	-81.8
Total	8 172	9 403	11 055	12 488	9 385	100.0	-24.9

CEPI Imports of Recovered Paper from Other Regions 2006–2010

'000 Tonnes	2006	2007	2008	2009	2010	Share of Total %	% Change 2010/2009
Other Europe	831	983	943	976	1 020	83.6	4.5
North America	228	211	166	158	184	15.1	16.4
Latin America	8	7	6	1	3	0.2	140.6
Asia	0	3	2	12	5	0.4	-53.5
Rest of the World	6	4	7	9	8	0.7	-12.0
Total	1 073	1 208	1 124	1 156	1 220	100.0	5.5

CEPI Trade Flows of Recovered Paper in 2010

All Figures are Million Tonnes

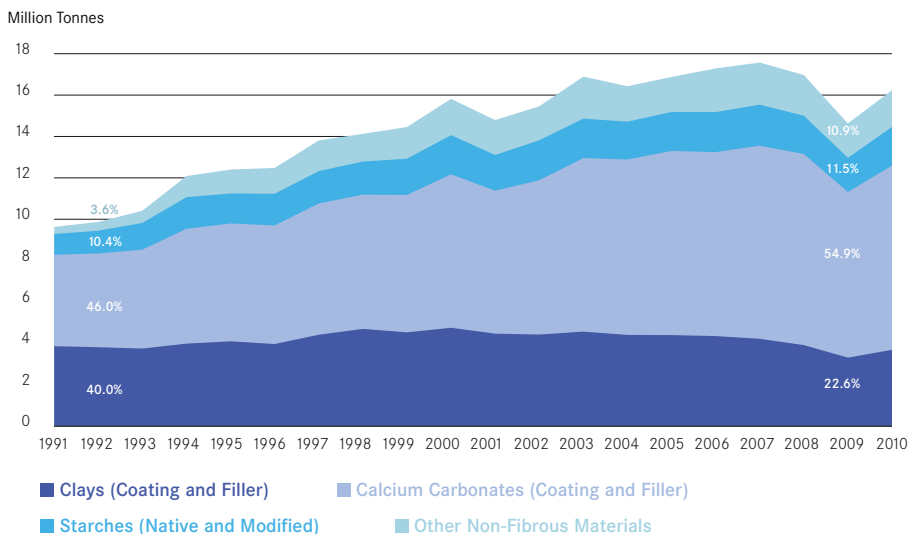


Non-Fibrous Materials

CEPI Non-Fibrous Materials Consumption 1991–2010

'000 Tonnes	1991	2000	2005	2009	2010	Share of % Change		
						Total %	2010/2009	2010/2000
Clays (coating and filler)	3 864	4 758	4 401	3 306	3 686	22.6	11.5	-22.5
Calcium Carbonates (coating and filler)	4 439	7 448	8 939	8 045	8 943	54.9	11.2	20.1
Starches (native and modified)	1 005	1 901	1 891	1 657	1 877	11.5	13.3	-1.3
Other Non-Fibrous Materials	347	1 760	1 699	1 669	1 782	10.9	6.8	1.3
Non Fibrous Materials Consumption	9 655	15 867	16 930	14 677	16 288	100.0	11.0	2.7

CEPI Non-Fibrous Materials Consumption 1991–2010



Energy – Energy and Electricity Consumption

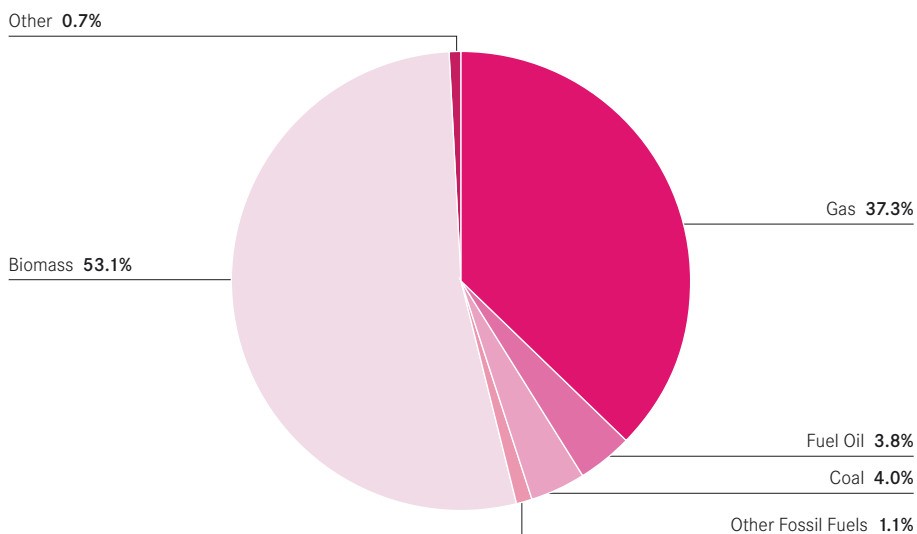
CEPI Primary Energy and Electricity Consumption 2000–2009

	2000	2005	2007	2008	2009	Share of Total %	% Change 2009/2008
Fuels Consumption (TJ)	1 153 204	1 278 732	1 337 324	1 283 654	1 180 706	100.0	-8.0
of which:							
Gas (TJ)	410 434	494 940	501 374	493 371	440 960	37.3	-10.6
Fuel Oil (TJ)	93 679	70 405	60 253	50 609	44 554	3.8	-12.0
Coal (TJ)	59 304	48 314	55 089	47 827	47 661	4.0	-0.3
Other Fossil Fuels (TJ)	19 054	19 714	20 281	14 422	12 756	1.1	-11.6
Biomass (TJ)	566 509	636 682	691 244	669 903	626 896	53.1	-6.4
Other (TJ)	4 225	8 702	9 083	7 522	7 879	0.7	4.7
Net Bought Electricity (TJ)	254 543	238 260	242 449	226 544	190 725		-15.8
Total Primary Energy Consumption (TJ)	1 407 747	1 516 992	1 579 773	1 510 198	1 371 430		-9.2
Fraction of Biomass in Total Fuels Consumption*	51.6%	52.3%	53.7%	53.9%	54.9%		0.9
Total Electricity Produced at Site (GWh)	42 238	49 591	54 223	53 342	49 082	48.1	-8.0
Purchased Electricity (GWh)	74 433	75 686	76 574	71 698	62 621	61.4	-12.7
Sold Electricity (GWh)	-3 726	-9 503	-9 227	-8 769	-9 642	9.4	10.0
Total Electricity Consumption (GWh)	112 865	115 838	121 280	116 083	102 049	100.0	-12.1

CEPI total: AT, BE, CH, CZ, DE, ES, FI, FR, IT, NL, NO, PL, PT, SE, SK, UK, excluding HU, RO, SL

* Declaration of Intent on Renewable Energy Sources: including Austria, Belgium, Finland, France, Germany, Italy, Netherlands, Norway, Portugal, Spain and Sweden.

CEPI Fuels Consumption in 2009



Environment – Key Figures

Environment in CEPI Countries¹ 1990–2009

	1990	1995	2000	2008	2009	% Change 2009/2008	% Change 2009/1990
Energy Consumption and CHP*							
Production of Market Pulp and Paper ('000 Tonnes)	71 335	84 448	100 627	111 456	99 509	-10.7	39.5
Total Specific Primary Energy Consumption (Tj/kt)	16.07	15.27	13.99	13.55	13.78	1.7	-14.2
of which:							
Specific Fuels Consumption	13.08	12.66	11.46	11.52	11.87	3.0	-9.3
Specific Net Bought Electricity	2.99	2.61	2.53	2.03	1.92	-5.7	-36.0
Specific Electricity consumption (MWh/kt)	1.24	1.16	1.12	1.04	1.03	-1.5	-17.5
% of Electricity Produced through CHP compared to total on-site electricity generation	88.1	89.1	90.1	94.3	94.8	0.6	6.7
Direct CO₂ Emissions²							
Absolute (Mega Tonnes)	39.89	41.48	41.94	38.13	34.23	-10.2	-14.2
Specific (kt CO ₂ / kt of product)	0.57	0.50	0.42	0.35	0.35	0.5	-38.7
Indirect CO₂ Emissions²							
Absolute (Mega Tonnes)	14.50	14.03	14.93	12.60	10.49	-16.7	-27.6
Specific (kt CO ₂ / kt of product)	0.20	0.17	0.15	0.11	0.11	-6.7	-48.1
Water Specific Emissions							
BOD (kg / t of product)	5.29	2.87	1.68	0.86	0.85	-1.6	-83.9
COD (kg / t of product)	26.57	14.24	9.07	6.30	6.27	-0.4	-76.4
AOX (kg / t of product)	0.577	0.095	0.048	0.029	0.028	-4.3	-95.2
Air Specific Emissions							
SO ₂ (kg SO ₂ / t of product)	1.69	0.84	0.41	0.28	0.27	-1.4	-83.8
NOx (kg NOx / t of product)	1.31	1.11	0.89	0.81	0.84	3.6	-35.7

* CHP = Combined Heat and Power

¹ Excluding Hungary & Romania – excluding Poland before 2003

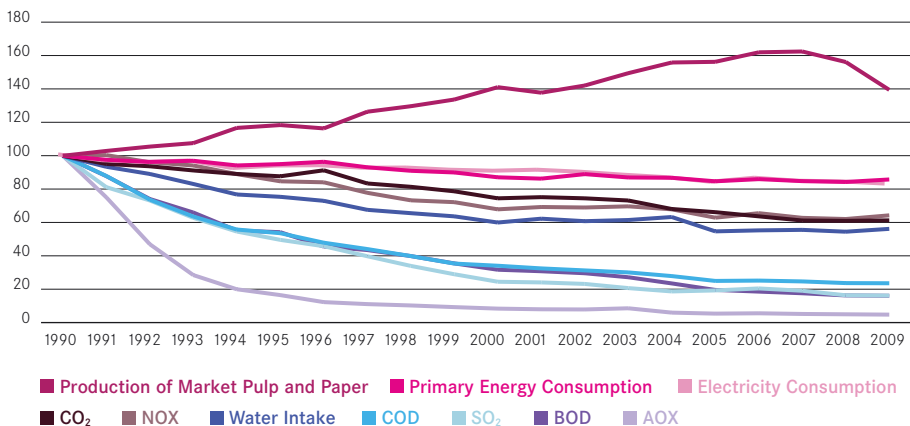
² Excluding Switzerland

Note: Direct CO₂ Emissions are the fossil emissions produced by the pulp and paper mills and connected energy plants.

Environment – Environmental Impact and Water

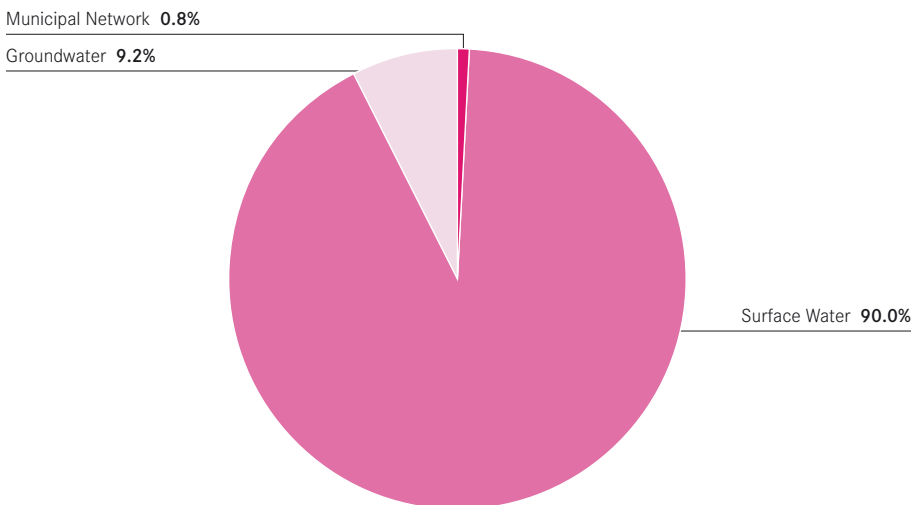
Environmental Impacts of the European Pulp and Paper Industry 1990–2009

Index of Specific Value (1990 = 100)



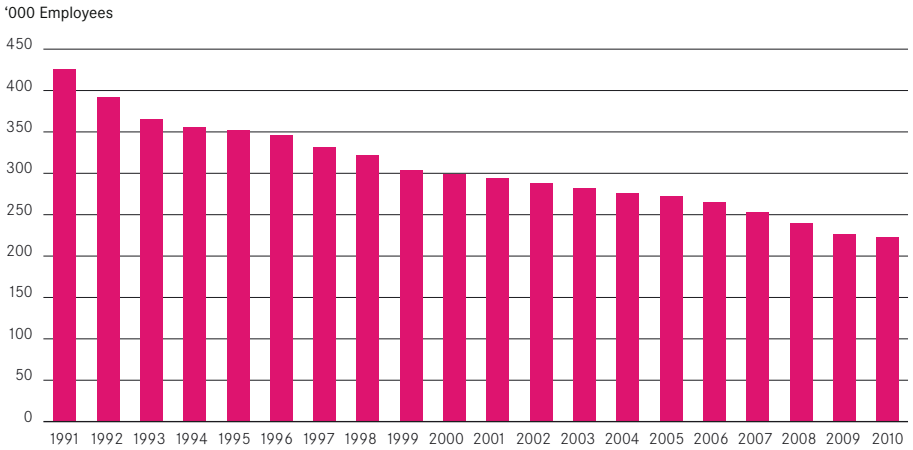
Water Emissions: COD (Chemical Oxygen Demand)– BOD (Biological Oxygen Demand) – AOX
 Air Emissions: CO₂ – NOX (Azote Oxides) – SO₂

Sources of Water in 2009

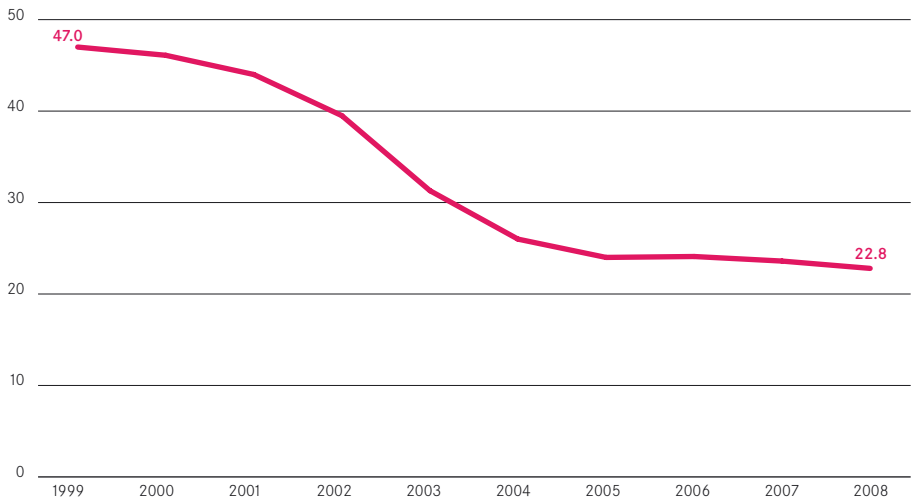


Social Affairs – Employment and Accidents

CEPI Total Employment 1991–2010



CEPI Incidence Rate* in 1999–2008



*Incidence Rate: Number of accidents (fatal and non-fatal) x 1000/number of employees (absence of more than 3 days)

Glossary

PULP

Pulp Consumption: Internal deliveries + Imports from outside CEPI.

Pulp Grades

Mechanical – Stone groundwood: pulp produced by grinding wood into relatively short fibres. CEPI Harmonised Code is 923 000 000.

Thermo-mechanical: pulp produced in a thermo-mechanical process where wood particles are softened by steam before entering a pressurised refiner. CEPI Harmonised Code is 923 400 000.

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

Paper and Board Consumption: Internal deliveries + Imports from outside CEPI.

Paper 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.

Sanitary and Household: 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.

Case Materials: 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 containerboard, corrugated case materials, cardboard, linerboard or corrugating medium. CEPI Harmonised Code is 300 000 000.

Carton Board: 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 (up to 125 g/m²): 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 Papers mainly for Packaging Purposes: 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, asphaltting, and other specific applications or treatments. CEPI Harmonised Code is 800 000 000.

RECOVERED PAPER

Collection: utilisation plus exports minus imports of recovered paper.

Utilisation Rate: percentage of recovered paper utilisation compared to the total paper production.*

Recycling Rate: “recovered paper utilisation + net trade”, compared to paper & board consumption.

Utilisation by Sector: total utilisation of recovered paper in a sector as percentage of the overall recovered paper use.

***Important Note:** Recovered paper 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 recovered paper grades and countries. The volume of recycled fibres actually used to produce new paper is therefore lower than the volume of recovered paper considered. The utilisation rate compares recovered paper utilisation to paper production.

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