UTIPULP

Colmar – April 20th, 2007

GENERAL MEETING

MINUTES

UTIPULP

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COLMAR – April 20th, 2007

- ATTENDEES -

UTIPULP Chairman :			
Mr	Franz-Josef	OHLE	STORA ENSO INTERNATIONAL Ltd
UTIPULP Secretariat :			
Mr	Nicolas	OUDIN	UTIPULP
BELGIUM			
Mr	Wayne	THOMAS	SAPPI FINE PAPERS EUROPE
DENMARK			
Mr	Eilif	LADEGAARD	DALUM PAPIR A/S
FRANCE			
Mr	Jérôme	DELALY	ARJOWIGGINS S.A.
Mr	Henri	GILBERT	SMURFIT KAPPA
Mr	Mikko	MERILUOTO	AHLSTRÖM
Mr	Jean-Olivier	ROUSSAT	PAPETERIES DE CLAIREFONTAINE
GERMANY			
Mrs	Ute	JOHNEN	KANZAN SPEZIALPAPIERE GmbH
Mr	Klaus-Dieter	KIBAT	V.D.P.
Mr	Hermann Josef	KRULL	NORDLAND PAPIER GmbH
Mr	Oliver	SÖDER	MYLLYKOSKI CONTINENTAL GmbH
ITALY			
Mr	Lasse	AHTINEN	CARTIERE BURGO SPa
Mr	Antonio	BOTTEGA	FEDRIGONI CARTIERE SPA
Mrs	Cinzia	CARADINI	ASSOCARTA
Mrs	Gloria	RICCIONI	GRUPPOCORDENONS SpA
NETHERLAND			
Mr	Victor	KAMM	SAPPI EUROPE S.A.
Mr	Norman	SNEL	Inkoop-combinatie De EENDRAGT b.v.
SWITZERLAND			
Mr	Jörg	BITTERLI	KIMBERLY CLARK GmbH

UNITED KINGDOM

Mr	John	GOVIER	ARJO WIGGINS Ltd

EXCUSED

Mr	Enrico	BROUWER	V.N.P.
Mr	Armando	CAFIERO	ASSOCARTA
Mr	Joao Gorjao	CLARA	RENOVA S.A.
Mr	Luis	COSTA LEAL	CELPA
Mr	Peter	DONNABAUER	DR. FRANZ FEURSTEIN
Mr	Firmin	FRANCOIS	COBELPA
Mr	Jürg	KAUER	M-REAL BIBERIST
Mr	Luigi	LAZZARESCHI	DELICARTA S.PA.
Mr	Patrick	MADER	AUSTROPAPIER
Mr	Manuel A. S.	MOREIRA DOS SANTOS	SOPORCEL S.A.
Mr	David	MORGAN	CONFEDERATION OF PAPER INDUSTRIES
Mr	Carlos	REINOSO	ASPAPEL
Mr	Rudolf	SEELMANN	SCA GRAPHIC LAAKIRCHEN
Mr	Joep	STEVENS	GEORGIA PACIFIC

UTIPULP

General Meeting

Colmar – April 20th, 2007

AGENDA

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- Information on the CEPI study on the origin of virgin fibres
- Date and location of the next meeting

- MINUTES -

1. WELCOME & APOLOGIES

Mr Franz-Josef OHLE, UTIPULP Chairman, opens the meeting at 9:15 a.m. He welcomes all the participants and presents the apologises of the members who have not been able to join the present meeting.

He thanks the French Delegation, for the organisation of this meeting and the invitation to the dinner organised jointly wit EUROPULP on Chateau du Haut-Koenigsbourg on April 19th. He reminds the attendees that Europulp also organised an interesting meeting on Thursday afternoon, with two speakers : Mr Oliver LANSDELL (Hawkins Wright Ltd) and Mr Dries VAN WING (CANFOR). The two presentations are attached to these Minutes.

2. APPROVAL OF THE AGENDA

The agenda of the general meeting is unanimously approved

3. APPROVAL OF THE PREVIOUS MEETING MINUTES

The minutes of the previous meeting, which took place in Berlin on September 22nd, 2006 were sent to the members on September 29th. These Minutes are unanimously approved.

4. GENERAL ISSUES

A) UTIPULP STRUCTURES

x Changes in the composition of the National Delegations

UTIPULP Secretariat has been advised of the following changes into the composition of the National Delegations :

Belgium :

COBELPA informed UTIPULP that Mr Didier VANDENBON (ADAPACK INTERMILLS) left the Belgian Delegation.

United Kingdom :

CPI informed UTIPULP that Mr Richard SEXTON (Confederation of Paper Industries) left the UK Delegation.

The Secretary indicates that some Delegations still miss one or two delegates:

- Belgian Delegation : 1 member
- Danish Delegation : 1 member
- Spanish Delegation : 2 members
- UK Delegation : 1 member

The Secretary also indicated that during the next meeting (September 2007), one member of the Executive Committee would have to be elected (end of Mr Antonio BOTTEGA term).

B) COMMUNICATION

x Website : evolution, new login and password

New login and password are communicated in session. It is reminded that the members have a restricted access to the data detailed country per country on the member's pages of the website. New login and password are given by UTIPULP (only), during the General Meetings and to the National Associations every 6 months. To obtain the login and password the companies have to contact their National Association.

Statistics of connections and downloading are presented in session, showing a fairly stable frequentation. The spike in visits are always between the 15th and 18th of each month, showing the high interest for the UTIPULP statistics.

The first referring website is the CEPI website, together with the Google website. "UTIPULP" and "pulp" are the most used search terms bringing the visitors to the site.

C) STATISTICS

x World statistics

9 *Changes in the world producers statistics*

During the Vancouver 2006 meeting, the AF&PA announced that it would cease publishing its monthly global chemical market pulp report, transferring this work to the Canadian organisation PPPC. This transfer took place at the beginning of 2007.

A complete memo on this issue, describing the dialog that took place between PPPC and UTIPULP, as well as the consequences on the information received is circulated and is attached to these Minutes (see the Annexes).

The following remarks were made by the participants :

- UTIPULP should ask PPPC if any additional figure is available on the pulp producers statistics. Other documents may indeed be circulated by PPPC with different information included.
- UTIPULP members regret that these changes imply less and less transparency on the market. However they reaffirm their willingness to continue to publish the UTIPULP figures.
- UTIPULP members should contact their suppliers, in order to convince them that information should be more transparent.

9 *World capacity evolution survey*

As for the Berlin meeting in September 2006, the UTIPULP Secretariat gathered information from the press (*i.e.* public information), on the evolution of the world woodpulp capacities, including all openings and closures. This survey provides information on the capacity evolution by country, by company, by grade and by year, up to 2011.

The survey is circulated during the meeting and attached to these Minutes (see the Annexes).

9 *Comparison of the definitions of "market pulp" used by the Associations*

During the previous meeting, the Members asked the Secretariat to make a comparison of the definitions of "market pulp" used by the different pulp Associations.

A memo on the issue was circulated during the meeting and is attached to the Minutes (see Annex …)

x UTIPULP statistics

9 *Outcome of the transparency questionnaire and changes applied to the monthly statistics*

A transparency questionnaire was sent to the National Associations in January 2007, in order to verify if the published UTIPULP statistics were compliant with the European competition rules. This questionnaire lead to some changes in the members only part of the UTIPULP monthly report. No changes were applied to the public part of the report.

A memo summarising the changes was circulated during the meeting (see the Annexes).

9 *State of the approval of the annual revised figures*

In order to calculate the budget share for each member country, a questionnaire was sent to the National Associations asking for their annual revised consumption figures. So far, the Austrian answer is missing.

9 *Pulp trade by the UTIPULP countries*

As for the Berlin meeting (September 2006), the UTIPULP Secretariat did an extract of the European Statistical Office Database (EUROSTAT). The outcome of this extract is a set of graphs showing the evolution of the market pulp imports by the UTIPULP countries, considered as one country.

A complete memo was circulated during the meeting and is attached to these Minutes.

The members made the following remarks:

- The fall in the softwood imports may be linked to the launch of the Stendal pulp mill in Germany.
- Another explanation may be that the global inventories in Europe are also being reduced, reducing the demand for the imported market pulp.

- Moreover, one should take into account the number of mills closures that occurred over the last months, and the increasing demand for hardwood pulp, compared to softwood.

9 *Presentation of the economic situation in each member country*

Each Delegation sent to the UTIPULP Secretariat a short memo on the macroeconomic and pulp and paper situation. The information provided was then put on the slides that were commented by each of the Delegations.

These slides are attached to the Minutes of the meeting.

The members made the following remarks :

- There is a great concern about the impact of the new export duties applied on wood by Russia.
- The members stressed out the current importance of the exchange rate on the pulp and paper markets.
- The members indicated that there is an increasing demand for the Forest Certification Labels coming from the customers. However, the availability of certified pulp remains poor.
- A question was raised on the importance of the consignment stocks.
- The members stressed out that the paper companies operate now differently, with fewer stocks, notably due to financial reasons.

5. OTHER ISSUES

A) 2006ACCOUNTS AND 2007 BUDGET

x **UTIPULP 2006 accounts**

The total of the expenditures reached 19 648,15 euros (-1,8% compared to the budget)

- Ö Meeting expenses have been superior by 97,66 euros to the budget, because the Berlin meeting had an overall elevated price.
- Ö Secretariat expenses have been inferior by 430,71 euros to the amount voted in the budget, due to efforts made on copying costs, and to reduced expenses on salaries.
- Ö Website: the expenses correspond exactly to the budget.
- Ö Transaction expenses were 18,80 euros below the budget.

The resources (contributions + interests) amounted to 24 287,96 euros.

The comparison of the expenses and the resources shows a benefit of 4 639,81 euros. Affecting the 2006 benefit to the reserves, UTIPULP reserves amount to 13 934,65 euros, above the target fixed by the General Assembly in April 2005.

Mr OHLE submits the 2006 accounts (and the affectation of the benefit to the reserves) to the approbation of the General Assembly. The 2006 accounts and the affectation of the benefit to the reserves are unanimously approved by the General Assembly.

x UTIPULP 2007 budget

The Chairman indicates that the UTIPULP reached in 2006 a decent level, representing more than 8 months of expenditures. The efforts decided during the Bath meeting could then be stopped.

It is proposed to have a level of charge of 20 090 euros in 2007, slightly increasing (+2,2%) from its 2006 level. The resources (contributions + interests) are budgeted at 22 090,00 euros. The Chairman proposes a 9,1% decrease in the level of the contributions. The comparison of the expenses and the resources should make appear a benefit of 2 000 euros.

After affecting the 2007 benefit to the reserves, the reserves of UTIPULP should correspond to 15 934,65 euros at the end of 2007.

Mr OHLE submits the budget proposal for 2007 to the approbation of the General Assembly. The proposal of the 2007 budget is unanimously approved by the General Assembly.

A discussion took place on the way the expenses related to the meetings should be shared between the members. Some Delegations indicated that the costs implied by the dinner and the visit on the day prior to the meeting, which are currently paid by the hosting country, are a real burden to the budgets of the National Associations. They propose to pass on these costs to UTIPULP, which would spread the expenses among the countries, without having spikes in expenses every 5 years.

The participants indicate that a survey should be completed by the Secretariat in order to collect the opinion of each National Association on this issue.

B) DATE AND LOCATION OF THE NEXT MEETING

The Secretary indicates that the Portuguese Delegation invites UTIPULP Members in Portugal for the next meeting. The Portuguese Delegation is thanked for the invitation and it is decided to hold the meeting on **September 20th and September 21st, 2007 in Portugal**.

The secretariat of UTIPULP will be in contact with CELPA to prepare the organisation of the meeting.

C) MISCELLANEOUS

To conclude, Mr OHLE indicates that Mr Nicolas OUDIN, current UTIPULP Secretary, will leave COPACEL and UTIPULP by the end of May 2007. He thanks in the name of all Members Mr OUDIN for his contribution to UTIPULP during the three passed years. Mr OUDIN also thanks the UTIPULP members for their confidence over the last years.

Having gone through all the items of the agenda, the President closed the meeting at 13:00.

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Joint meeting €uropulp - Utipulp
Colmar - France
April 19, 2007

Wood, Pulp, Paper and Energy: A Crowded Marriage

It is a challenge preparing and then giving a speech to an industry where energy plays such a dominant role. As we enter a new era of dwindling fossil fuel reserves, new contenders also appear for our precious raw material, wood. A turning point.

This is not a new situation either. L'histoire se répète. In the early part of the 19th century, we in Europe had nearly completely robbed all the wood from the forests and were saved by cheap coal, later by cheap oil. Now we are running out fast of non-renewable resources because too cheaply priced for too long, which inherently leads to misallocation and waste on an unprecedented scale.

We are also confronted with opposite viewpoints, as was the case in the late 18th century. Adam Smith took a mildly euphoric position compared to Malthus with his deeply pessimistic and simple economic model. Malthus only looked at natural resources and labour as inputs, and overlooked the power of technical progress, of capital formation, of knowledge, of international specialisation and international trade. We remain convinced that again mankind will master the problem, provided the right pricing of all remaining non-renewables helps us to stretch its availability and provided we timely master new technologies of energy creation and conservation. But we will have to hurry.

Disclaimers:
1. The views I express are my own and they do not necessarily reflect official positions of Canfor,
2. Nor are they mainstream, sounding contrarian rather than following the latest shout-of-the-day.

We will talk about
1. Economy, energy and growth
2. Peak oil and gas: why we believe the end of carbons is closer than we think
3. What to do now that climate change zealots and politicians are diverting attention from the real problem: we are running out of cheap non-renewable energy
4. Paper and energy
5. The future

Economy, Energy and Growth

The transition point from „merchant capitalism" to „modern economic growth" happened around 1820. Technical progress did not come in big „Schumpeterian" waves but was a smoother and a more diffused process, driven by extended application of science to problems of economic production. The so-called "industrial revolution" was more an e than a re.

Since 1820, population increased 6-fold and total energy consumption 46-fold. Nearly all that consumption happened in the most developed countries of the N-Hemisphere. Please observe that energy from "modern sources" (coal, oil, natural gas, water, nuclear) was non-existent in 1820.

World Consumption of Primary Energy 1820-2001

(In Million Metric Tons of Oil Equivalent)

	Population in Bn	***Energy Consumption in Tons of Oil Equivalent [toe]***			
		Modern Sources	Biomass	Total	Per Capita
1820	1.0	13	208	221	0.21
1870	1.3	135	254	389	0.31
1913	1.8	735	358	1093	0.61
1950	2.5	1625	505	2130	0.84
1973	3.9	5369	674	6043	1.54
2001	6.1	9072	1094	10165	1.65
180 yrs	x 6	x 703	x 5	x 46	x 8

Source: Angus Maddison -
Contours of the World Economy and the Art of Macro-Measurement 1500-2001

Before 1820, growth of per capita GDP was negligible. Economic growth was strongest between 1870 and 1913 and from 1950 to 1973. Overall, growth rates increased over time, as did energy and population.

On a per capita basis, total energy from "modern sources" exploded from 6% or a fraction of biomass (wood, peat, dung, straw, other crop residues) to 8.3 times biomass. It was only somewhere between 1870 and 1913 that modern energy per capita became larger than biomass. Over the whole period, biomass per capita remained nearly constant around 0.2 to. Biomass has long been the major energy source with modern sources only being dominant for the past 100 years.

Per Capita Consumption of Primary Energy in toe

		Per Capita		Modern v
	*GDP growth	Biomass	Modern	Biomass
1820	0.14	0.20	0.01	0.06
1870	1.06	0.20	0.11	0.53
1913	1.57	0.20	0.41	2.05
1950	1.17	0.20	0.64	3.22
1973	*3.72*	0.17	1.37	7.97
2001	1.95	0.18	1.48	8.30
		x 0	x 119	

* For W-Eu, N-Am, Australia and Japany from 1500-1820;
then 1820 to 1870, a.s.o.

The more we progressed, the lower the increment in per capita consumption of modern energy became, from period to period. Where it jumped 10-fold between 1820 and 1870, the increment was only 4-fold between 1870 and 1913, slowing to 50% from 1913-1950 and 1950-1973 to drop to a low of 8% since 1973, year of the first oil crisis. Over time, per capita use of modern energy slows down, but as population grows, total consumption follows another path.

World population is estimated to grow to 9 bn by 2050 (a level demographics say to be the maximum). There are many reasons to believe that per capita economic growth will continue at historic high levels, but do we have enough energy to lift 9 bn people to our level of energy consumption?

On Peak Oil & Gas

At $ 8-9 trillion, energy is the world's largest industrial activity (estimates Simmons & Company), equal to 14% of 2005 world GDP in PPP terms and 19% when calculated the classic way (at official exchange rates). Every significant 20th century advance carries the watermark of modern, cheap energy. By the end of the century, the fairy tale went global.

The peaking of the hydrocarbon supply may well happen while we speak.
Peaking means: production of oil and gas can no longer grow.

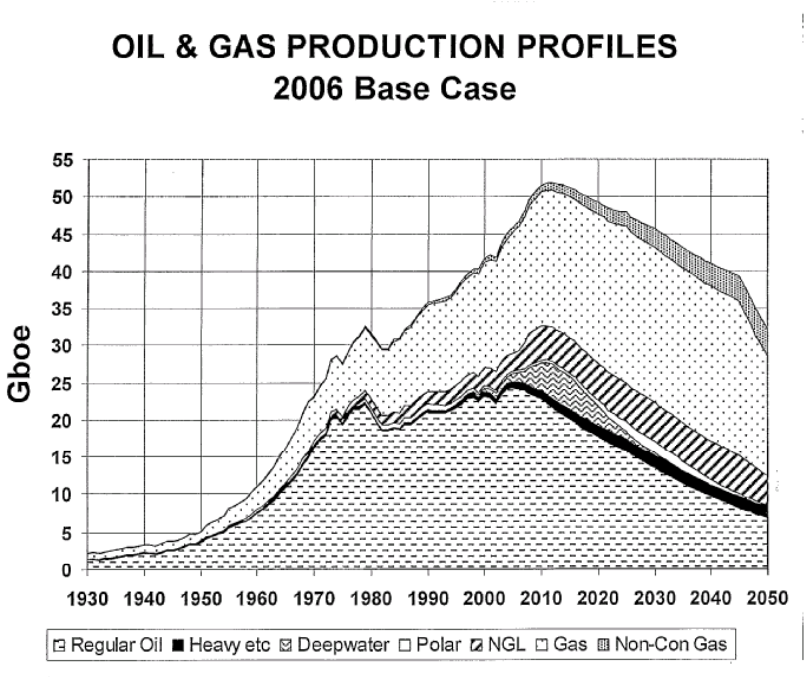
The problem:

- 95% of the world's proven oil & gas reserves are unaudited,
- We have hardly any data on decline rates and imprecise production data
- Gas is even more problematic as statistics are fewer and even fuzzier.
- The situation on the gas side is said to be even more dramatic than with oil. Gas is a vapour, declines faster and less noticed than oil.

The energy crisis we face is a classic case of exponential growth against a finite source, whereby price was not based on replacement cost but on free-for-all depletion. Free lunches are cancelled because of persistent success.

M. King Hubbert, an American Shell Oil Co. geophysicist developed a methodology to assess how output and decline of an oil well varies with time. In 1956, he correctly predicted the rise in production, the peak between 1966 and 1971 and the subsequent fall in output of oil fields in the USA. It peaked at 9.64 million b/day in 1970 (had dropped to 4.25 million barrels in 2005, according to the EIA).

What works for one oil reservoir works for the entire conventional oil industry. By applying this same process to global oil resources, Hubbert and other researchers estimated the peak in global oil production between 2005 and 2015.



Why do I believe in Peak Oil?

(a) The Power of 2

Was first mentioned in writing in 15th century Venice (Luca Pacioli) as rule of 70 (or 72).

This rule most likely was known before 1494, and is approximately one hundred multiplied by the natural logarithm of two or ln (2) = 0.693147181 x 100 = 69.3

For ease of calculation, it is dubbed the rule of 70. It is a rough and dirty method to estimate an investment's doubling time. The rule applies to exponential growth (and decay) and is therefore used for compound interest as opposed to simple interest calculations. A quantity grows *exponentially* when *its increase is proportional to what is already there*.

A common example is compound interest, where $100 invested at 7% per year annual compound interest will double in 10 years (70 divided by 7).

If a 'population' grows at 7% per year, it, too, will double in 10 years.

At 4% p.a. your capital/revenue etc doubles every 18 years; at 6% every 12. And if you want to see it doubled every 5 years you need a return of 70/5 = 14% p.a.

There's another beautiful consequence of this arithmetic.

If you take seventy years as a period of time it is roughly one human lifetime.

Any percent growth continued steadily for seventy years gives you an overall increase by a factor that's very easy to calculate.

For example 4% per year for 70 years, you find the factor by multiplying four two's together it's a factor of 16.

Apply this now to GDP growth rates of 10% in China and 8% in India. By extension, it also means that:

- Market capitalisation (or the stock market) cannot outperform profits
- Income from capital cannot outperform income from labour
- Growth of the value of property cannot outperform income from labour

New research from the McKinsey Global Institute (MGI) reveals that global energy demand is on a path to grow by 2.2 percent a year over the next 15 years or doubling every 32 years.

Oil consumption grows at 1.8% p.a., hence doubles every 40 years.

(b) The Unbearable Quickness of Doubling

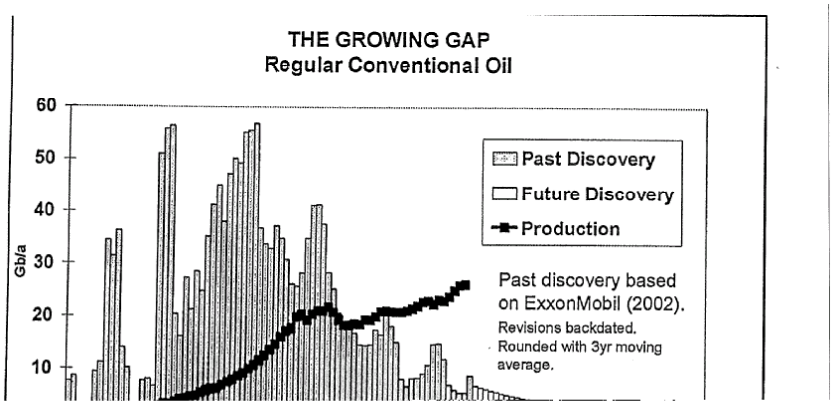
Sissa ben Dahir, Wazir of the court of King Shiram is said to have 'invented' chess. His boss loved the game so much that he offered Sissa any reward he could name. Perhaps trying to impress the king with his mathematical skills, Sissa asked for some rice, one grain on the first square of the chessboard, two on the second, four on the third, eight on the fourth, and so on.

1	2	4	8	16	32	64	128

We all know the story.
BUT: 1+2 = 4 minus 1 and 128 on the 8th square is 1 less than the sum of all 7 squares before. Hence, the last doubling is more than the sum of all doublings ever before.

Now put **(a)** & **(b**) together:

- Proven reserves are the oil resources that can be extracted profitably with at least 90 percent probability; they are sufficient to meet world demand *at current levels* for over 40 years. Those 40 years started a few years ago. Since Shell, we know what this means.
- But at current levels means we will not be able to increase consumption by 1.8% pa over the next 40 years; it means we have for 40 years left at + 0% p.a.
- Peak-oil is the 50% point: 50% depleted – 50% left
- On the upslope, oil is plentiful and cheap because demand (production line in the graph below) is below supply (past discovery), and supply is high because the authorities that 'own' the wells need income for their population or themselves and their satraps.



- These warm periods are called interglacial periods and last between 15 and 20.000 year
- The last major glacial thaw started 18.000 years ago from temperatures on average 8°C lower than today; we reached today's temperatures some 11.000 years ago, since when temperatures hardly changed, only up or down fractions of one degree BUT at times this was enough to create a mini ice age (as from a peak around 1100-1200 to a trough that lasted from 1400 through 1850).
- During icy periods, carbon dioxide concentrations drop from a maximum of around 280-300 ppm to around 200. Today we are at 380 ppm. These 80 above all time highs are those man-made.
- Changes in both temperatures and CO2 happen generally synchronized and the earth always CO2 level always peaked around 300 ppm, shortly before it returned to the ice mode. There is evidence that climate warming can set up conditions that create a global chill.
- Till we can substitute carbon-based fuels, CO2 can only but increase further.
- The warm period of today is the longest on record (a bit longer than the one from 400.000 years ago). Is it possible, thinkable, plausible that this is the reason why mankind has developed uninterrupted and undisturbed for that long for the first time since the big bang?
- This globe is nearly un-inhabitable during icy periods; our dense tropical forest of today was earlier merely savannah or arid wasteland (read: deserts, ice or others)
- If we are in the year 18.000, and counting, of this interglacial vacation in our temporary Garden of Eden, then we may be closer to the end of our Holiday From Ice.
- Science only started measuring on a broad and scientific scale as from the mid 19th century. This coincides with the end of the mini-ice age. Who wonders that when we relate our readings of today to what was measured at the trough, only shows increases?

Climate change is inherent to this globe, always was and will. Just consider the following titbits from recent times:

- The desert from the Mediterranean to south of the Sahara was once (and not that long ago) one big forest. It was not cut to build the pyramids.
- Hannibal *probably* never saw glaciers when he crossed the Alps. Its glaciers started growing after 1200 and melting from 1850 onwards.
- In 1794, explorer Captain George Vancouver found Icy Strait choked with ice, and Glacier Bay was a barely indented glacier. That glacier was more than 4,000 feet thick, up to 20 miles or more wide, and extended more than 100 miles to the St. Elias Range of mountains. But by 1879 naturalist John Muir found that the ice had retreated 48 miles up the bay. By 1916 the Grand Pacific Glacier headed Tarr Inlet 65 miles from Glacier Bay's mouth. Such rapid retreat is known nowhere else. (US Department of the Interior: National Parks Service). Imagine this would have happened under Mr Al Gore's watch!
- What happened after the ice melted that once covered all of Europe north of the Alps and Pyrenees? What will happen, as the frozen tundra will turn to a swampy marsh? All those mouse, caribou, elk and ice bears, living as far north already as they can with no possibility to go any higher, will bog down in the new mud, which then will freeze, trapping them and their poor Bambis in an icy death grip. Has happened before in history, many times. Great times ahead for Disney Studio's.
- For the sake of time, I will now skip creationism!

"Scientific wealth tends to accumulate according to the law of compound interest," said Lord Kelvin. Our industry largely contributed to the development of secular knowledge and science. Until Gutenberg's printing shop started around 1450, most instruction was oral as in ancient Greece and Rome. By 1500, some 220 printing presses operated throughout W-Europe and had already produced 8 million books. A flood of new secular learning was doing away with wisdom and dogma of the past (with Rome trying to recoup lost territory by Inquisition and censorship).

Over the course of a few years, productivity in book production increased at least 200-fold. Before, a scribe needed one year to finish one book. The "creative destruction" that originated from our industry was unprecedented. Ask the monks, cheep and the whole knowledge industry of those days. Now comes the internet, and knowledge accumulates and distributes even faster than ever before. All this happened in the past 600 years. Just think how things would have panned out if we had gone straight into the next ice age after 1200?

Let us think back 150 years when Lord Kelvin lived**.** With perfect hindsight**,** we now know how GDP, population and wealth exploded with the accumulated application of science to problems of economic production. Most likely this would not have been possible without converting and depleting the cheapest energy sources.

We now also know that climate change is not an economic catastrophe (yet). Allow me to quote Martin Wolf: *"The probability is high that the next richer and very knowledgeable generation will be able to adapt quite well to those climate changes. The losses from climate change are not only hard to predict but also impossible to evaluate and by the time they have happened, will be irreversible".* (FT – 07.02.2007)

In my opinion, our problem is not one of climate change, but ***fixing our future energy needs*** by optimizing energy consumption where possible, using oil and gas only where no alternatives are available, hoping for politicians to implement the right policies, whereby:

1. Subsidies are disastrous (have been and always will be) as they mostly only cure the symptoms;
2. Regulation is nearly as bad as subsidies; just listen to that slavering sound (that is at least what I heard when those hundreds IPCC people were gathering next door to our Brussels office); the sound comes from all those bureaucrats hoping for well-paid secure jobs and consultants hoping for juicy contracts. To them, climate change is „ein Schlachtfest ohne Ende".
3. Taxation of non-renewables and ALL renewables with a poor energy balance, to force consumers and industry to more energy friendly consumption and production. Then use those revenues to offset consumer income by reducing other taxes and fostering R&D. The right price is the only strong deterrent of waste. That price should be high.
4. Every calculation must be based on sound Life Cycle Assessment [LCA]. Energy is too precious to be wasted.

Pulp, Paper and Wood

Facit: our industry not only converts a lot of "renewable carbon fibres" in to fiber-based products, but in the process it also destroys a lot of energy. Today it is the only way to produce paper, using lowest energy consuming state of the art technology. The general rise in energy costs now brings new and more 'powerful' competitors to the market for our cheap raw materials. Of course we don't like this.

The calculations to get to the energy that is embodied-consumed-wasted to produce one tonne of paper are rather complicated.

INPUTS:

- Trees are cut with feller-bunchers, transported by truck to the sawmill
- Sawmill residues (1 ton of chips have .3215 toe – tonne of oil equivalent – 3 tons chips equal one tonne of oil) are transported to pulp mill, mostly by truck
- A modern pulp mill is energy self-sufficient; we use 2.2 tons wood or 0.7 toe to end up with one ton of pulp that contains roughly 0.33 toe (using up 54% of the initial energy).
- Pulp then is shipped all over the globe by ship, train or truck
- A paper mill consumes huge amounts of energy in its process (refining, paper machine, coater) and all raw materials have high energy contents (wood for SGW/TMP, waste paper or pulp)
- And a lot of other raw materials like latex and chemicals, all oil and gas based

Take a modern paper machine producing UC WF

- Using 66% HW, 9% SW and 19% filler, the remaining 6% are water
- All pulps used are produced in a modern mill, using no fossil fuel
- SW chips travelled 300 km in 50 tons trucks to the pulp mill, 200 km for HW chips (45% yield/50% moisture)
- SW pulp moved 17000 km by ocean vessel to the paper mill, and 5000 km for HW

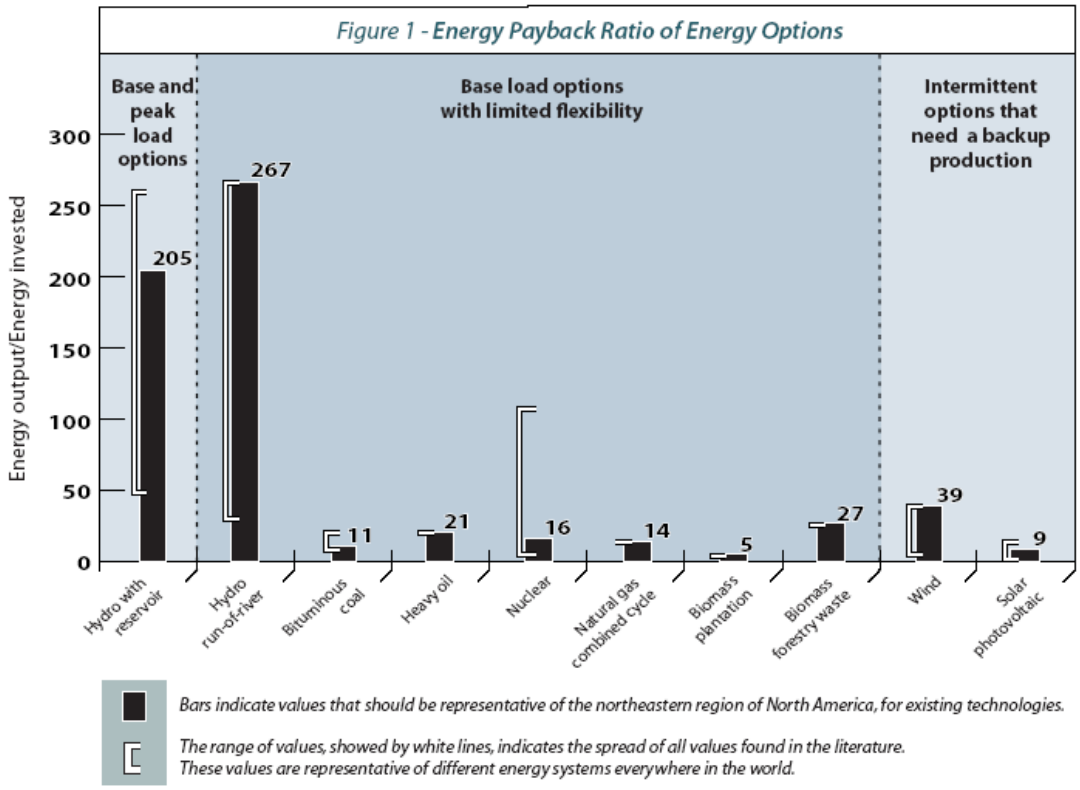
Based on the above model, my colleague and Director Technology, Mike Bradley, in cooperation with Springer Verlag and Stora Enso calculated (using LCA inputs) the following chemical energy numbers (this estimate doesn't include the energy to actually make the paper):

- 11 GJ total process energy, i.e. the energy used up to produce the products and get them to the mill gate;
- 2.8 GJ of these 11GJ was energy in the wood chips for a fossil free value use of 8.2 GJ;
- 38 GJ total extracted energy, i.e. energy that was depleted (or 35.2 GJ fossil free)

Conclusion: 27 GJ or 76% of the original energy content that were available on earth, were irreplaceably lost in the process because processes are not efficient, and energy is lost in conversion. Put another way: with the net calorific value of 1 tonne of oil at 42GJ, we extracted (and depleted) the equivalent of 905 kg oil, wasted 643 of them to bring an equivalent of 262 kg to the mill gate. Not a great example of efficient energy use. This study is downloadable from our Canfor technical website www.temap.com

The Future

Science hasn't come up with a cost effective substitute for oil, gas and coal yet. Workable alternatives must have a low "energy payback ratio". This ratio is the energy produced during the normal life span of that power generating system, divided by the energy required to build, maintain and fuel the equipment. A ratio of one means it consumes almost as much energy as it produces. The lower the ratio, the least it is preferable.



Based on LCA, Hydro Quebec compared the power generation options for a range of today available systems as alternatives to oil, gas and coal. For comparison: fossil fuel systems are in a range from 11 to 21.

- Hydro outperforms, always
- Wind comes next at an astonishing 39
- Followed by the stable (predictable) 27 for biomass from forestry waste (and only 5 when from plantations because of its higher energy input).
- With 16, nuclear is low and has a huge spread.
- Heavy oils (tar sands) at 21 and bituminous coal at 11 come in low. In the Peak-Oil graph earlier, tar sands (and other heavy stuff like shale) were shown, as a small black zone, but it will last way beyond 2050. To convert tar to oil, a lot of energy is needed, today predominantly gas, what explains its low energy payback ratio of 21.

Coal, coal-to-liquid and coal-to-gas are no help at all: not on the CO2 side, and little on the availability side. At today's rate of consumption, the World Energy Council says we would have enough for in excess of 200 years, but maximum 50% is recoverable. Then remember the rule of 70 and losses in the conversion to liquids! The IEA predicts coal usage to rise 32% from 2006 to 2015 (10years!!!), of which 86% in developing countries. Coal is the poor man's energy, and he cares a lot

about CO2 emissions. To reduce emissions of CO2 and sulphur, the scrubbing of sulphur and sequestering of CO2 (when commercially available) will involve huge amounts of energy.

Over the next years, a lot of new energy sources and technologies based on renewables will have to be used. In 2005, only 6% of US primary energy consumption was covered by 'renewables of any kind' of which 61% were used for electrical power and 23% industrial. We need a major breakthrough for those renewable energy sources to cover a substantial part of today's energy need. The drama of our industry is the caloric value imbedded in our basic raw material: wood.

Energy Content of selected Carbons

	Kcal/kg	Pellets = 100
Nat Gas Liquids	10750	225
Heating oil	10025	210
Coal	6200-7400	140
Wood pellets	4800	100
Pulp/Paper	4600	95
Air dry wood	4700-5000	100
Dry split wood	3225	70

At today's oil prices, wood delivers energy for a fraction of the cost of oil, as do all nearly all other energy sources. But wood is a ubiquity, low capital intensity, its technology age-old and it works, everywhere and always. Waste paper is no different. The table has been turned on us and we do not have a good hand.

The vigilance with which the EU (administration and politicians) are pushing through their Bio-energy policies and Biomass Action Plan (in which forest biomass plays a key role) makes the wood-pulp-paper industry problems irrelevant and trivial in the face of the overall problems.

Good news is the position of the Finnish MEP Eija-Riita Korhola statement that *"all renewable energy must be assessed with life cycle thinking (including peer review) including all emissions during production and transportation*." (Cepi – Issue 18 – November 2006)

WWF states that raw materials should be made and used in a sustainable way. Climate change and CO2 lead to a new hierarchy of uses. Wood for pulp and paper or for energy is not the issue; renewable energy is.

Sweden is the only country that has made up its mind. The Swedish Commission on Oil Independence wants to turn Sweden into an oil-free society by 2020 and its conclusions are:

- No oil for residential & commercial buildings
- Increase efficiency of energy use by 20%
- All transport to cut petrol/diesel usage by 45-50%
- Industry reduces oil by 25-40%

Meanwhile, our industry sends out mixed signals. CEPI's President Jan Astrom wants to re-establish fair competition between wood for biomass and for raw materials, dismantling subsidies and taxes. Very laudable! Signs are getting alarming that recovered paper is increasingly used for energy generation. Mr Henri Vermeulen

– Chairman CEPI Recycling and Product Committee – states: *„First priority is policies that do not disturb the market and that the paper industry has access to its valuable fibers with affordable prices, without having to face biased competition of subsidized energy generators". „Local authorities need clear guidance on how to organise the paper collection in the most sustainable way*". (Cepi – Issue 18 – November 2006). Hasn't the paper industry been subsidized for years by favourable recycling legislation, giving abundant cheap supply, collected by local authorities and paid for by taxing citizens?

Pöyry conducted a study for CEPI, comparing ***Value Added*** and ***Employment*** in the P&P Industry versus the Energy Alternative, using primary and secondary fibre. In the best-case-scenario, total VA amounted to €263 bn for P&PI v €33.8 bn and employment 2.95 million v 0.23 with bio-energy.

		Core Level	Total Impacts*
Value Added bn€	PPI	27.5	263
	Energy	6.3	33.8
Employment	PPI	264,200	2,950,000
	Energy	46,000	229,000

** = core + upstream + downstream + multiplier*

No wonder. P&P is one of the most capital-intensive industries and VA increases with the amount of capital tied up in the process. Then consider what we said earlier about *"76% of the original energy content that were available on earth were irreplaceably lost in the process."* If we were to be consistent with ourselves, we should promote the use of ULWC over toilet tissue because of its higher VA component. This example confirms again our statement about using LCA.

The closing slide of the CEPI Open Seminar "Bio-Energy – The Burning Issue" (29 November 2006) reads: *"Efficiency of the energy production from biomass should be a priority and should be monitored in order to avoid wasting the resource".* Q.E.D.

Can we really ignore the use of wood for energy?
Canadian wood pellets have a calorific value of just over 5.0 MWH per ton or 18.5GJ per ton. For a few years now, pellets to major power producers in Europe sell at prices stable around €27.5 per MWH. One tonne of pellets sells @ €27 * 5 = € 137.5/ton = $185 per ton, for a total production cost of around $115 at 90% energy efficiency. Compare this to paper and to oil.

Pulp and paper are capital intensive, its business volatile. Equity investors should receive a premium to the industry's weighted cost of capital, which already ranges 9% to 12% for prime companies.

Forestry companies need steady and secure buyers for its saw milling residues. It makes or breaks their profitability. As they produce large volumes of chips, pulp mills were prime outlets, once.

If one were to build a state of the art pellet plant, C$27.5 million buys you one, and you get four for C$110 million. Each plant consumes 400.000 Odmt of woodchips and other residues, and 1.6 million tons of chips for four of them are equivalent to what one state of the art NBSK (BC Interior) mill of 750.000 tpy would need, but then at an investment priced around U$ 1.3 bn, say C$ 1.5 bn rough and dirty.

For the sake of simplicity now: if we were to take a low 9% as the cost of capital (you need excellent credentials) and imagine that pulp mill up and running after only one year of construction time, then the 1.5 bn dollar at 9% would have siphoned away already C$135 million before the first ton of pulp was produced. This is more than the total investment in 4 pellet plants. Now again, imagine, you are the visionary CEO who has to convince his board of a C$1.5 bn investment in a new pulp mill. I presume you can catch my drift.

What are the alternatives?

During the transition period, renewable sources, no matter how optimistic you are, can only cover a fraction of our current consumption. When faced with seemingly insurmountable problems, it can be tempting to turn to alcohol. Bio fuels reduce emissions, but like other forms of alcohol, they are a palliative, not a cure:

- They increase food prices; modern agriculture once was the use of land to convert oil in to food; now we go in reverse (read: perverse).
- Cutting down rainforest is also not a nice way to save the planet
- Ethanol distilleries use coal/oil/gas

Ethanol from trees, grasses and other biomass is still too expensive though have a huge potential provided costs can be reduced dramatically. It has the potential to outperform sugar cane in Brazil with an 8.3 energy balance (12% consumed of final energy output). Wood isn't getting any cheaper any time soon. Our industry may well witness the end of cheap raw materials and cheap energy. Not very comforting.

Conclusions

It is time to wake up to the new and harsh realities. Our planet has always turned around by its own mechanism that supersedes the power and control of its leaseholders. Since 1500, mankind was able to unravel part of this mechanism as knowledge exploded. In that same process, we have depleted in as little as 100 years the best part of the non-renewable carbons that nature took more than 100 MILLION years to create.

What bothers me most is that climate change is turned into a scare, high-jacked for the wrong reasons. We must cut back on non-renewables, not because of the climate change, but because we are unnoticed and silently running out of them. All our progress and our whole political, economic and social system has been *"fuelled and propelled"* (sorry for my language) because energy was priced wrongly, and to a large extend was wasted. If energy is not reprised anytime soon (the ideas of Professor Ernst von Weizäcker from the Wuppertal Institute for Climate, Environment and Energy author of "*Factor Four: Doubling Wealth, Halving Resource Use"* can be a useful guideline), then politicians will do what they always do: go for the road of least resistance. The risk is that we will hit the wall having even fewer alternatives, with very unpredictable but surely unpleasant consequences.

Slower economic growth must not be the ultimate consequence. I am hopeful. Hopeful that linked knowledge will timely develop new energy 'converters and generators' based on renewables, decoupling growth and progress from the use of fossil fuel. In that transition, wood, pulp and paper will be reprised and our capital-intensive industry will face many unpleasant challenges. It will not be business as usual because at the same time, the Internet based knowledge economy starts making inroads. Remember our monks.

HAWKINS WRIGHT

The Long Term Outlook for Market Pulp

April 2007

Outline

- Overview of the pulp market
  - Current trends in demand
- Overview of the printing and writing market
- Pulp production costs
- Market pulp supply and demand forecast

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Market Pulp Demand in 2006

- Demand for bleached chemical pulp totalled 44.7 million tonnes in 2006, an increase of 1.8 million t, or 4.2% on 2005.
- Producers shipped at 96% of capacity, up 3 percentage points on 2005
- Consumers consistently drew down from their own inventories during 2005, reducing demand relative to consumption. Hawkins Wright estimates that consumption grew by at least 5% during the year.

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Demand driven by BHKP demand

thousand tonnes			*% change*
Destination	**2005**	**2006**	**2005/06**
North America	8,219	8,440	2.7%
Nordic	1,418	1,625	14.6%
West Europe	15,229	15,510	1.8%
East Europe	1,135	1,130	-0.4%
Latin America	1,979	2,075	4.9%
Oceania	311	300	-3.5%
Japan	2,341	2,495	6.6%
China	5,952	6,575	10.5%
Asia/Africa	6,265	6,515	4.0%
WORLD TOTAL BCP	**42,849**	**44,665**	**4.2%**
BSKP	21,258	21,590	1.6%
BHKP	20,763	22,285	7.3%
Sulphite	828	790	-4.6%
Total BCP	**42,849**	**44,665**	**4.2%**

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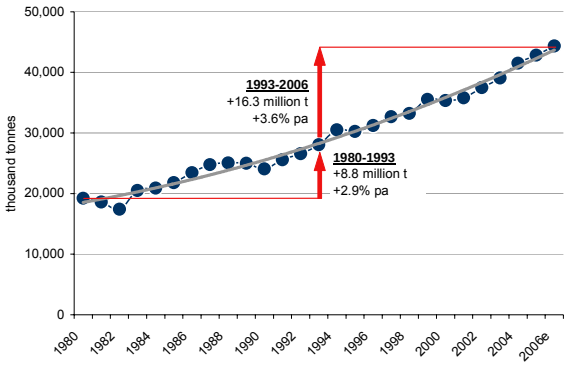
World market pulp demand growth

- The size of the bleached chemical pulp market has more than doubled since 1980
- The average growth rate has increased to 3.6% pa in the second half of this period (1993-2006), from 2.9% in 1980-1993, due largely to the emergence of China as a major market pulp consumer.



Bleached chemical market pulp, 1980-2006

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World market pulp demand growth

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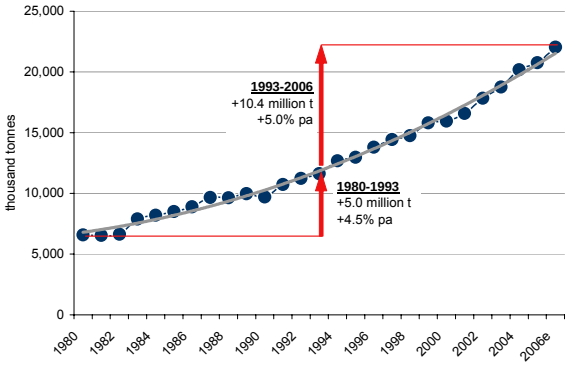
- The average growth rate has increased to 3.6% pa in the second half of this period (1993-2006), from 2.9% in 1980-1993, due largely to the emergence of China as a major market pulp consumer.
- The BHKP market has seen the fastest growth, rising by 5% pa in 1993-2006



Bleached hardwood kraft market pulp, 1980-2006

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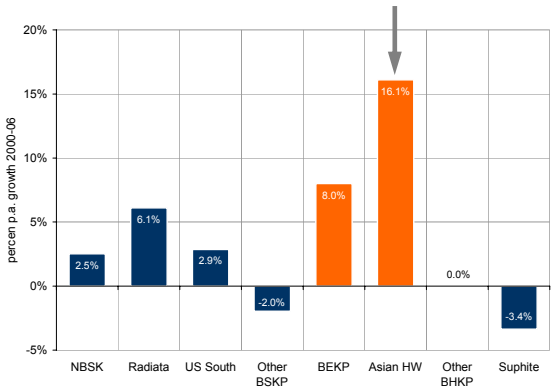
Market pulp demand growth by grade

The major trends are:

- **The increased use of hardwood grades of pulp at the expense of softwood grades.**
- **The increasing market share of grades from the southern hemisphere, particularly in Latin America and more recently in south-east Asia (mixed hardwood and acacia).**



2006 data (estimated)

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The Paper Markets

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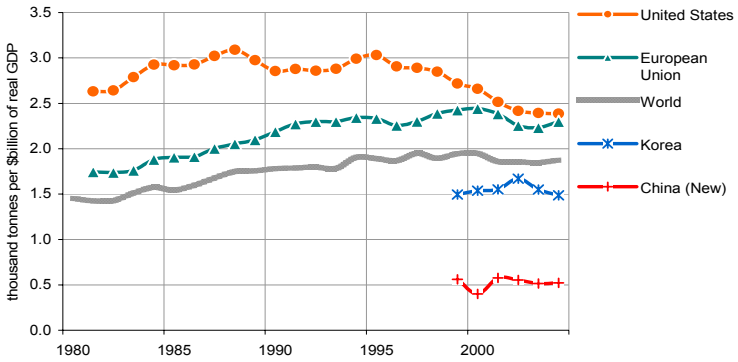
The intensity of paper & board demand

The amount of printing & writing paper used per unit of GDP is no longer rising and in developed countries it is falling



Note: Intensity = P&W demand divided by GDP in constant 2004 US dollars.
Local currency GDP is converted into dollars at Purchasing Power Parity (PPP) rates of exchange.

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Global paper markets are mature

- World demand for P&W has grown at only 1.4% p.a. in the past five years, meanwhile...
  - US (real) GDP +2.4% pa
  - Per capita P&W consumption -1.4% pa
- P&W demand since 1998
  - developed nations +0.7% pa
  - developing nations +6.9% pa

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Global P&W production
Migration to China

thousand tonnes	2000	2005	*Growth p.a. 2000-2005*
West Europe	34,333	38,103	*+2.1%*
North America	30,493	27,865	*-1.8%*
Japan	11,754	11,479	*-0.5%*
Sub-total	76,580	77,447	*+0.2%*
South Korea	2,015	2,439	*+3.9%*
China*	1,621	3,590	*+17.2%*
Sub-total	3,636	6,029	*+10.6%*
Others (est.)	13,405	16,854	*+4.7%*
Total	**93,621**	**100,330**	**+1.4%**

Note: China = New China only

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P&W demand – technology threat

- Paper no longer used for storing information

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Example – pen drive...

- Pen drive 1 GB capacity, cost $20
- Hawkins Wright China report 1MB
- Pen Drive holds 1000 reports
- Report weighs 1 kilo
- Pen drive replaces 1 tonne of paper!

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P&W demand – technology threat

- Paper no longer used for storing information
- In developed countries growth in consumption of certain grades will eventually turn negative. Certain print media in grave danger
- Developing countries will 'leapfrog' paper use for communicating and entertaining
- Internet penetration to expand further

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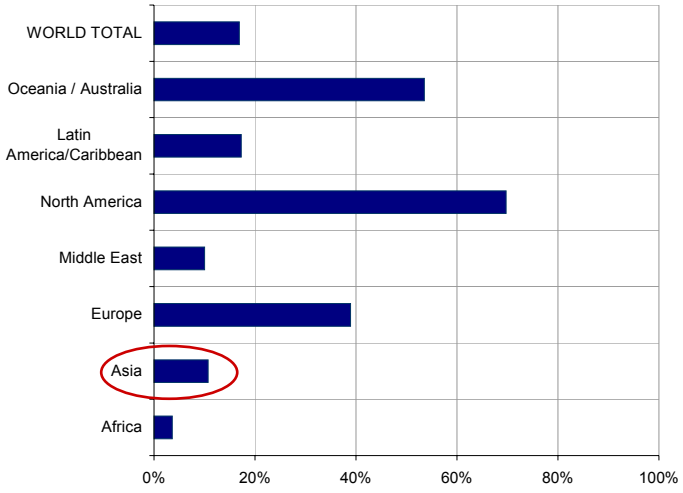
Internet Penetration



Source: Internet World Stats

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Major restructuring of North American and West Europe paper markets

- **Rising production costs – fibre, energy, freight, chemicals**
- **Lack of demand**
  - (Newsprint, UFS and Containerboard negative growth)
- **Over capacity**
- **Falling prices**

- Smurfit Stone
- Domtar
- Georgia Pacific
- International Paper
- Weyerhaeuser
- Bowater
- Stora Enso
- UPM Kymmene
- Sappi
- Norske Skog
- M Real

- **All major producers are closing or divesting capacity**
- **E.g. 5.6 Mty P&W capacity closed in W.E and N.A**
- **Only Asia and Eastern Europe are growing**

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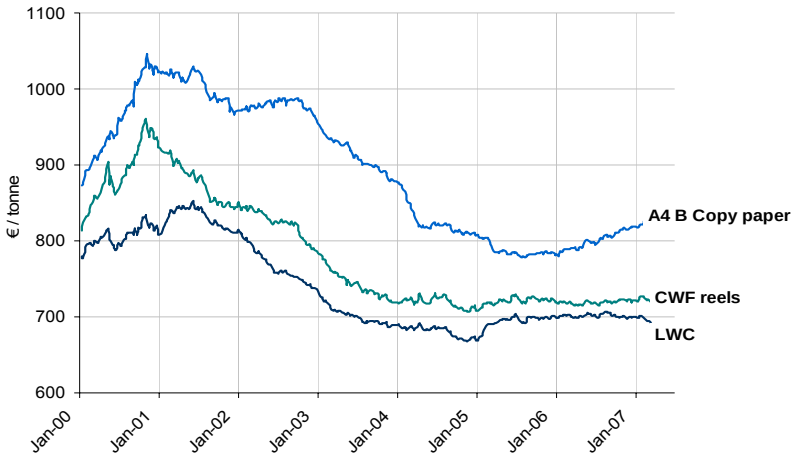
FOEX (PIX) indices
European paper prices



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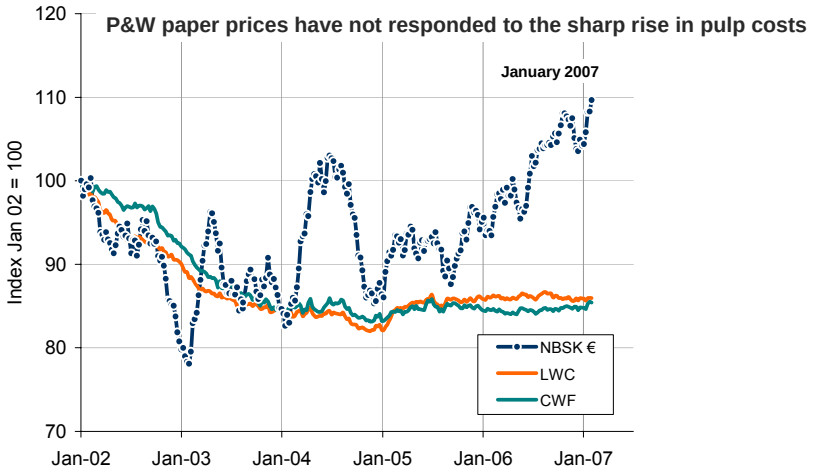
Index of paper and pulp prices in Europe
(in euro)



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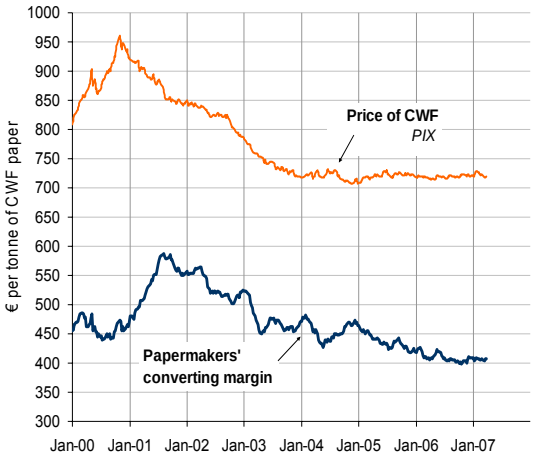
Papermakers' converting margins
in West Europe



- Converting margin is the difference between the paper price and the fibre input cost
- Margin is money available to pay for all other costs – energy, chemicals, labour, transport etc
- These other costs have all increased so margins are now inadequate and 2.8 Mt/y of P&W is closing in Europe

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A growing quandary…

Without meaningful increases in the price of paper, pulp producers will increasingly struggle to apply their own price hikes, which could have serious repercussions in the near future…

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Market pulp costs

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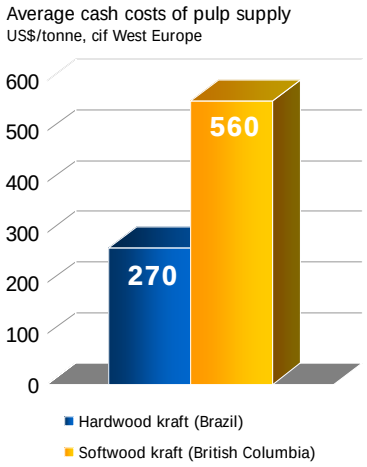
Global pulp production

Two major trends...

- Production is moving towards the south:
  - > Climate
  - > High-yield plantations
  - > Scale economies
- Substitution of hardwood for softwood

One over-riding reason...



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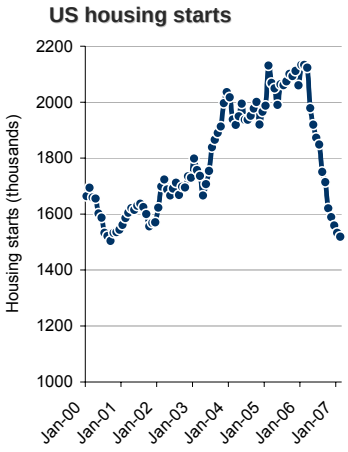
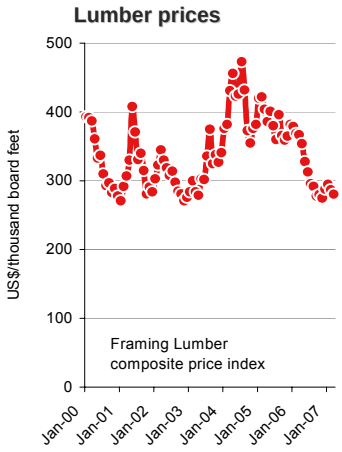
Rising wood costs in North America



Source: Department of Commerce



Source: Random Lengths

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North America

- Even at today's prices, many North American pulp mills are struggling to cover their cast costs
- Hit by:
  - > High cost of wood and other inputs
  - > Scale economies
  - > Exchange rates
  - > Reduced demand in North America for the principal end product, printing & writing paper (and newsprint).
- In 2005-2006, 2.7 million annual tonnes of wood pulp capacity has shut.
- More closures will follow...
  - > Mixed hardwood is particularly vulnerable

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The quandary…

- In 2006, softwood producers shipped at close to 97% of capacity.
- The World-19 statistics show that softwood producers have shipped at full capacity during the first 2 months of this year.
- Another closure could lead to a serious short-term supply disruptions.

HOWEVER – the markets will slowly readjust

- ¾ Restart of previously idled lines at Terrace Bay
- ¾ Restart of Prince Albert?
- ¾ US mill to swing 100% to softwood
- ¾ Continued ramp-up of new capacity in Chile

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Market pulp supply and demand

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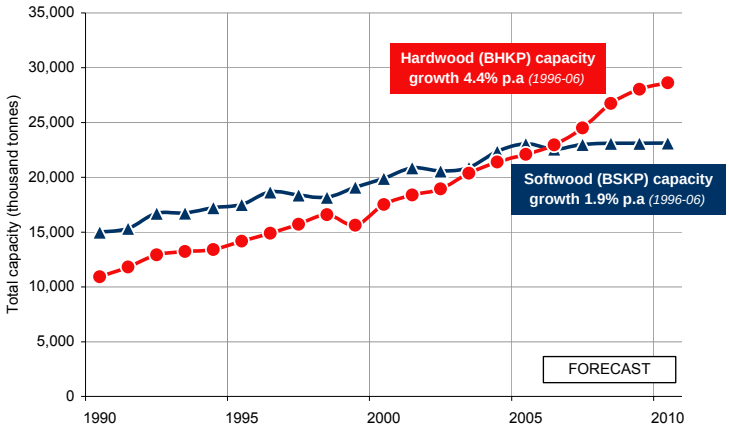
Hardwood market pulp capacity is expanding far faster than softwood market pulp capacity



After adjusting for the reclassification of previously integrated pulp as 'market pulp', there has been almost zero growth in BSKP capacity since 2000.

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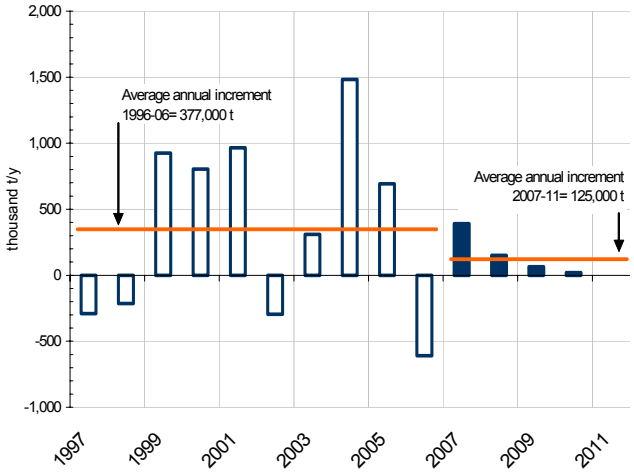
Year-on-year change to softwood capacity



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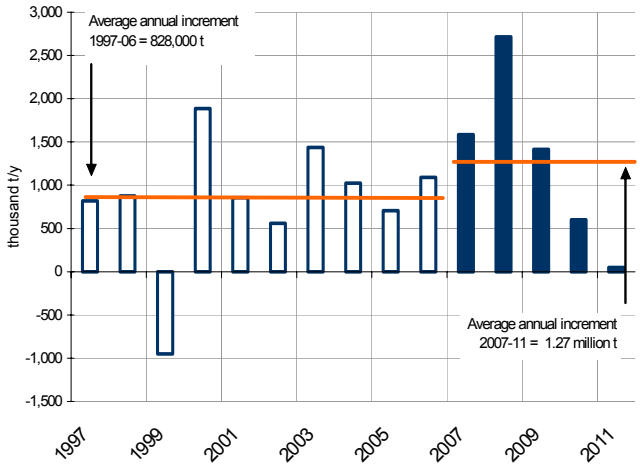
Year-on-year change to hardwood capacity



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BHKP capacity expansions 2007-2011

- Uruguay – Botnia and ENCE total 2.0Mty
- Brazil – Veracel, Aracruz, Suzano, VCP, Lwarcel, Cenibra, Ripasa, total 2.7 Mty
- Chile – CMPC and Arauco, total 1.3 Mty
- Indonesia – APRIL and APP, total 1.5 Mty
- Malaysia – Acacell 0.8 Mty
- China – APP 0.4 Mty

- Total 8.7million t/y

- Demand 2006 = 22 million t

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Thank you…

UTIPULP

Group of European Market Wood Pulp Users

Memo
AF&PA transferred its pulp statistical activity to PPPC

9 Context

During the Vancouver 2006 meeting it was announced that PPPC may take over the responsibility of compiling and releasing the World Market Pulp Statistic, then replacing the AF&PA.

In November 2006, the AF&PA and the PPPC entered into an agreement on North American market pulp statistics. As a consequence, since January 2007, PPPC is the sole North American organization to collect and publish market pulp statistics.

9 Impact on the world pulp producers statistics

- ***Initial proposal by PPPC***

In January 2007, UTIPULP received an e-mail from PPPC indicating that if UTIPULP wishes to continue receiving the monthly International Chemical Market Pulp Statistics Report in 2007 it should complete an order form and return it to PPPC.

This subscription form implied a yearly subscription costing 800 CAD (i.e. around 520 Euros).

- ***Final agreement between UTIPULP and PPPC***

UTIPULP Secretariat stressed out that :

- over last years UTIPULP developed a strong and very appreciated partnership with AF&PA on world market pulp statistical issues. Regular contacts were established in order to enhance the mutual knowledge of our organisations' statistics, as assessed by the fact that AF&PA joined one of UTIPULP meetings in Netherlands in 2004. Other contacts regularly occurred, at Chairmen's level, during the different world market pulp meetings.
- moreover, a free and regular exchange of the statistics was established, based upon the assumption and strong belief that a higher transparency on the market is the best way to base decisions upon good, reliable and shared information. In that context, market pulp organisations should be exchanging these statistics for free.

PPPC finally agreed to exchange data with UTIPULP. In exchange for the UTIPULP monthly statistics, PPPC sends free of charge a copy PPPC's monthly International Chemical Market Pulp Statistics Report, waiving the annual subscription fee of 800 CAD (approximately 560 Euro). However UTIPULP had to agree to not redistribute PPPC's report to a third party including UTIPULP members, nor to reproduce it for distribution purposes. However, UTIPULP was allowed to use it for internal analysis purposes and include a few of the key figures in reports distributed to the members only.

As a consequence, UTIPULP stopped publishing on the members only website the whole pdf document, but continues to include the inventory level (in number of days - which can be considered as "key figures") on the monthly statistical report as well as on a database on the website (members only).

- ***Comparison of the Information included in the AF&PA and PPPC reports***

	AF&PA report	PPPC report
World market pulp shipments		
- by region	X	X
- by grade	X	X
- by region & grade	X	Not available
- 3 months moving average	X	Not available
World pulp producers stocks		
- in days of supply	X	X
- in days of supply (SADJ)	X	X
- 3 months moving average	X	Not available
Regional market pulp demand	X	World only
Shipment / Capacity Ratio	X	Not available

* * * * *

WORLD MARKET PULP CAPACITY EVOLUTION

- *UTIPULP SURVEY FROM THE PRESS*
- *FOEX SURVEY*

UTIPULP – COLMAR – APRIL 20th , 2007

UTIPULP

Market pulp capacity survey

DRAFT - Source : Press

Company	Mill	Country	2005	2006	2007	2008	2009	2010	2011	Softwood	Hardwood	Remarks
Zellstoff Poels	-	Austria						90		90		Total : 450 KT after 2010 - Project
Protavia	Argyll	Australia					350				350	CTMP - Eucalyptus
Infrastructure Project Group (IPG)	Heywood	Australia				350						BCTMP
Svilocell	Svishtov	Bulgaria			95						95	BHKP
Aracruz	Guaiba	Brazil	30								30	1,8 Mt of Hardwood pulp planned between 2010 and 2015
Lwarcel	Lancois Paulista City	Brazil	100								100	
Veracel	-	Brazil	360	540							900	2Q 2005
VCP	Jacarei	Brazil	50	50	50						150	
Cenibra	-	Brazil			200						200	800 KT BHP plan for 2013
Suzano	Bahia	Brazil			1000						1000	2Q 2007
Bahia Pulp	Bahia	Brazil			250						250	3Q 2007
Jari Celulose	Monte Dourado	Brazil			40						40	
Aracruz	Barra do Riacho	Brazil					250				250	
VCP	Rio Grande do Sul	Brazil							1000		1000	
UPM-Kymmene	Miramichi	Canada	-100							-100		-
Neenah Paper	Terrace Bay, Ont.	Canada	-125							-125		Indefinite downtime
Domtar	Lebel-Sur-Quevillon, Que.	Canada	-300							-300		Indefinite downtime
Domtar	Cornwall, Ont.	Canada		-160						-160		-
West Fraser	Hinton	Canada			-70					-70		NBSK (S2 2007)
Parsons & Whittemore	Ste Anne Nackawic	Canada		240							240	Woodpulp, and then disolving pulp
Weyerhaeuser	Prince Albert, Sask.	Canada		-130								NBSK - Indefinite downtime
Tembec	Smooth Rock Falls	Canada		-200						-200		NBSK
Western Forest Products	Squamish, Col. Brit.	Canada		-275						-275		NBSK - permanent downtime
Bowater	Thunder Bay	Canada		-200						-200		Permanent downtime
Weyerhaeuser	Grande Prairie	Canada			30					30		
Arauco	Valdivia	Chile	220							?	?	
CMPC	Santa Fe	Chile		390	390						780	3Q 2006
Arauco	Nueva Aldea	Chile		850						425	425	2Q 2006
CMPC	Laja	Chile			90					90		
APP	Hainan	China	1000			300					1300	
Shandong Chenming Paper Hdgs	Zhanjiang	China				700					700	Eucalyptus
APRIL	Rizhao City	China				1000					1000	3Q 2008
Hunan Tiger	Yuangjiang	China				300				?	?	Maybe not "market" pulp - 1200 KT more to come
Estonian Cell	Kunda	Estonia		140						140		BCTMP
Botnia	Rauma	Finland			55					55		ECF & TCF
Buckeye Technologies	Glückstadt	Germany	-50									Cotton linters pulp
Mercer	Zellstoff Stendal	Germany	275	275						550		
Mercer	Stendal	Germany		50						50		Investment in 2 new digesters
APP	Indah Kiat	Indonesia			300						300	Eucalyptus
APP	Perwang	Indonesia			300						300	Eucalyptus
APP	Jambi	Indonesia			200						200	
APRIL	Kerinci	Indonesia		-280							-280	Integration to a paper machine (UWF)
Altri	Celbi	Portugal				245					245	Date unknown
Altri	Celtejo	Portugal				55				55		Date unknown
Caima	Constancia	Portugal	10								10	
Ilim Pulp	Ust-Ilimsk	Russia		120	70					190		
Ruuki Group	Kostroma	Russia						300-500		300-500		Project - CTMP
Estonian Pulp	Dyedovich	Russia					600			?	?	BCTMP
International Paper	Svetogorsk	Russia		100						?	?	BCTMP - Q4 2006
Sappi Saicor	Durban	South Africa				215						Dissolving pulp
Rottneros	Richards bay	South Africa				140					140	CTMP - Eucalyptus
Mondi	Richards bay	South Africa	150								150	
Rottneros	Utansjö	Sweden	-73									Sulfite magnesium pulp
Stora Enso	Skutskär	Sweden	30							30		
Södra Cell	Värö	Sweden				25				25		
Korsnäs	Gavle	Sweden		-120								Fluff pulp
Domsjö	Ornsköldsvik	Sweden		20						?	?	
Munskjö	Aspa Bruk	Sweden			20					20		
ENCE	Navia	Spain				200					200	
ENCE	Huelva	Spain			7	13	10				30	
ENCE	Pontevedra	Spain			13	10					23	
Evergreen Pulp	Lopburi	Thailand						400			400	
Botnia SA	Fray Bentos	Uruguay				1000					1000	
ENCE	Colonia	Uruguay					1000				1000	
Incomex	Doy Xyen	Vietnam				115					115	Project
Tracodi	Phuong Nam	Vietnam			100							Kenaf pulp
Weyerhaeuser	Cosmopolis, Wash.	USA		-170								Specialties pulp
GP	Brunswick	USA			130							Fluff pulp
Fraser Paper	Berlin	USA		-125							-125	
Koch / GP	Old Town	USA		-100							-100	
		TOTAL	1577	1015	3270	4668	2210	490	1000	320	12418	

Table 5.6 Confirmed pulp capacity changes 2003-2007 (including the firmed projects mentioned earlier)

Company	Location	Product	Capacity Change, t/a	Timetable	Comments
FINLAND					
M-real	Kaskinen	BCTMP	+ 300 000	2005/06	New mill
UPM-Kymmene	Pietarsaari	BKP	+ 40 000	2002/03	Rebuild pulp-drying mach. (40 000 t market pulp)
	Pietarsaari	Sw	+ 140 000	May/2004	Rebuild recovery boiler
		Hw	+ 45 000		(120 000 t market pulp)
SWEDEN					
Munksjo	Aspa Bruk	NBSKP	+ 10-20 000	October/03	Recovery boiler upgrade
GERMANY					
Mercer	Stendal	BSKP	+ 50 000	2006-07	Capacity increase
SLOVAKIA					
Neusiedler	Ruzomberok	SW, HW	+ 70 000	9/2004	Rebuild recovery boiler etc
SOUTH AFRICA					
Mondi	Richards Bay	BHKP	+ 145 000	2005	Partly captive sales
Sappi	Saiccor	Dissolving	+ 225 000	Feb 2008	
SPAIN					
Ence	Navia	BHKP	+ 80 000	2002/03	All market pulp
		BHKP	+ 200 000	mid 2008	New line
	Huelva	BHKP	+ 30 000	2007	De-bottlenecking
	Pontevedra	BHKP	+ 20 000	2007	De-bottlenecking
RUSSIA					
IP	Svetogorsk	BHKP	+ 75 000	By early 2003	Total planned capacity increase 150 000, also paper cap. to be increased
	Ust-Ilimsk	NBSKP	+ 130 000	end 2005	Market pulp
			+ 70 000	end 2006	
USA					
Wausau Paper	Brokaw, WI	sulphite	- 90 000	Dec 2005	Closure
Sappi	Muskegon, MI	NBSK/NBHK	- 110 000	Sep 2005	Definite
Weyerhaeuser	Cosmopolis, WA	magn. si	- 140 000	H2 2006	Definite ?
Georgia-Pacific	Old Town, Maine	NBHK	- 200 000	Mar 2006	Indefinite
CANADA					
UPM	Miramichi	NBHK	- 220 000	Dec 2004	Definite
Domtar	Cornwall, ON	NBHK	- 160 000	Jan 2005	Definite
Neenah Paper	Terrace Bay, ON	NBHK	- 125 000	May 2005	Definite
Domtar	Quevillion, QUE	NBSK	- 300 000	Nov 2005	Indefinite
Western Forest	Squamish, BC	NBSK	- 275 000	Jan 2006	Definite
Weyerhaeuser	Prince Albert, SA	NBSK/NBHK	- 250 000	Mar 2006	Indefinite
Bowater	Thunder Bay, ON	NBSK	- 210 000	Q2 2006	Definite
Neenah Paper	Terrace Bay, ON	NBSK	- 350 000	Feb 2006	Indefinite
Terrace BayPulp	"	NBSK	+ 350 000	Oct 2006	Restart
Fraser Papers	Berlin, NH	NBHK	- 230 000	Apr 2006	Definite
West Fraser	Hinton, AL	NBSK	- 70 000	Q4 2006	Definite
Neucel	Port Alice, BC	BSI	+ 165 000	May 2006	Re-Start
Tembec	Smooth Rock Falls, ON		- 200 000	Jul 2006	Definite
Cascades	Jonquiere, QUE	NBSK	- 82 000	Jul 2006	Indefinite
ARGENTINA	Celulosa Argentina	BHKP	+ 50 000	2006	Upgrade

…Cont.

Company	Location	Product	Capacity Change, t/a	Timetable	Comments
BRAZIL					
Aracruz	Guaiba	BHKP	+ 30 000	Nov/2005	De-bottlenecking
	Barra do Riacho	BHKP	+ 250 000	2H/2007	Cap. increase of fiberline C
Suzano	Suzano	BHKP	+ 85 000	Dec 2003	Capacity increase (80 000 t market pulp)
	Mucuri, Bahia Sul	BHKP	+ 60 000	3-4/2004	Capacity increase
		BHKP	+ 1 000 000	End 2007	New line
Cenibra	Belo Oriente	BHKP	+ 200 000	2004-06	Capacity increase
Lwarcel	Lencois Paulista	BHKP	+ 80 000	Oct/2005	New line
Ripasa	Limeira	BHKP	+ 115 000	1Q/2003	Capacity increase
Veracel	Eunápolis	BHKP	+ 900 000	Mid 2005	New mill, 50/50 owned by Stora Enso and Aracruz
Votorantim	Jacarei	BHKP	+ 530 000	Jan. 2003	New line 670 000, closure of old 140 000 line; total market will be 900 000 tpa
	Jacarei	BHKP	+ 150 000	Late 2006	Capacity increase
	Tres Lagoas	BHKP	+ 1 100 000	Early 2009	New mill
CHILE					
Arauco	Valdivia	BHKP, BSKP	+ 260 000	Feb 2004	New mill
	Nueva Aldea	BSKP	+ 850 000	Aug 2006	New mill
CMPC	Santa Fe	BHKP	+ 750 000-800 000	Q4 2006	New line
URUGUAY					
Botnia	Fray Bentos	BHKP	+ 1 000 000	Mid 2007	New mill
Ence	Punta Pereyra	BHKP	+ 500 000	no estimate	New mill
INDONESIA					
Toba Lestari	Porsea	BHKP	- 120 000		
	North Sumatra	dissolv.	+ 100 000	June 2005	Conversion to dissolving
Riaupulp	Kerinci	BHKP	+ 650 000	Q4 2007	Capacity increase
CHINA					
Hainan Pulp (APP)	Hainan	BHKP	+ 1 000 000	Q1 2005	New mill, mostly integrated

Situation as of February 28, 2007

UTIPULP

Group of European Market Wood Pulp Users

"MARKET PULP DEFINITIONS"

COMPARISON BETWEEN THE DIFFERENT MARKET PULP ORGANISATIONS' DEFINITIONS

¾ *Context*

- During the last UTIPULP meeting in Berlin (September 2006), a memo on the differences between UTIPULP and PPPC statistics was presented to the members. This memo explained the differences between these two statistical releases by the different definitions used within the organisations.
- The UTIPULP members then wished to know more precisely what are the definitions used for "market pulp" by the different producers and consumers associations.

¾ *What is market pulp ?*

The definition of "market pulp" is different, according to the different market pulp associations.

a) UTIPULP

The UTIPULP definition is clearly stated by the rules of statistics, available on UTIPULP website:

Market pulp is pulp (dried and pressed into bales) that is sold in open competition with that of other producers. All pulp exported from the producing country is considered to be market pulp:

- *Pulp exported from a pulp mill to its own paper mills in another country is considered as market pulp (also called tied or captive pulp).*
- *Pulp that has been dried and shipped within a country to a user that is owned to less than 50 % of the supplier, is considered as market pulp.*

b) Pulp producers associations

The "market pulp" definition used by the pulp producers associations has been established in the 1950's. It differs slightly from the definition used by UTIPULP. Market pulp is:

- *All pulp that is sold on the market.*
- *Pulp that is consumed within the company but that crosses a border (so called integrated exports).*
- *However, integrated pulp shipped between USA and Canada is excluded from the market pulp concept.*

c) CEPI

CEPI's definition is pretty close to the UTIPULP definition:

Market pulp is pulp that is sold in open competition with that of other producers. All pulp exported from the producing country is considered to be market pulp. Integrated pulp is pulp that 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.

* * * * *

UTIPULP

Group of European Market Wood Pulp Users

REPORT ON THE TRANSPARENCY QUESTIONNAIRE 2007

¾ *The context*

On January 12th, 2007, a questionnaire was sent to UTIPULP members in order to identify, for each country and grade, the number of companies covered by the statistics that are published. The aim was to verify that all applicable rules on statistics and competition are achieved in the UTIPULP statistical activities, and to elaborate some groupings of countries or grades, if needed.

This survey was also carried out according to the UTIPULP Statistics Rules of Operation stating :

> " *UTIPULP has :*
> *ƒ to ensure that the global data are sufficiently aggregated on a product grade basis.*
> *ƒ to take any necessary decision to avoid the possibilities of identification of the individual data. (aggregation of different grades in the final statistics, grouping of national figures….)*
> *ƒ to raise National Associations awareness of the importance of their control on the data sent to UTIPULP.*"

All members answered to the 2007 questionnaire.

¾ *The rules*

According to European Union competition rules and jurisprudence, statistical activity needs to meet the following conditions to be deemed acceptable from a competition law perspective:

- Information has to relate to past market conditions,
- Data have to remain anonymous (no information on individual company),
- Data have to be aggregated. It is important that no producer should be able to obtain information about a competitor's business.
- Data has to be independently compiled (a company could not compile the information from other companies).
- Data should be public.

As a consequence UTIPULP is in breach of the law if, for one grade, the statistics published do not cover 3 or more companies, for a given country. In that case, the statistics have to be compiled wether with other grades or with other countries.

…/…

¾ ***The answers***

Answers to the transparency questionnaire, according to the current published country groupings:

	Unbleached	Bleached or semi bleached				CTMP	DIP
		Sulfite		Kraft			
		SW	HW	SW	HW		
Austria / Switz.							
France							
Germany							
Italy							
UK							
Portugal / Spain							
BE+DK+NL							
TOTAL	**35**	**55**	**27**	**158**	**146**	**65**	**29**

¾ ***Conclusions***

- The public release of UTIPULP statistics does not create any transparency problem.
- For the release of "Members only" statistics, problems were identified for the following grades :
  - the "unbleached" category
  - the sulfite pulp (softwood and hardwood)
  - the CTMP
  - the deinked Pulp.

¾ ***Decision regarding the "Members only" part***

a) Stop publishing the "unbleached" pulp figures by country (for information EPIS does not publish the unbleached figure anymore neither).
b) Group the softwood (sulfite and kraft) and hardwood (sulfite and kraft) bleached grades.
c) Stop publishing the DIP ad CTMP figures by country.

As a consequence, we would only publish detailed figures by country for the Bleached Pulp grades.
No change has been applied to the public release.

* * * * *

PULP IMPORTS BY THE UTIPULP COUNTRIES

- *METHODOLOGY AND COMMENTARY*
- *LONG TERM EVOLUTION*
- *SHORT TERM EVOLUTION*

UTIPULP – COLMAR – APRIL 20th 2007

UTIPULP

Group of European Market Wood Pulp Users

PULP IMPORTS BY THE UTIPULP COUNTRIES

COMMENTS

This memo gives some information about the split and evolution of the imports of pulp by the UTIPULP countries. The source is the Eurostat database, available online : http://epp.eurostat.ec.europa.eu/

¾ ***Preliminary remarks***

- These figures include Imports from each of the UTIPULP countries but Switzerland (as Switzerland is not a EU country, the Swiss figures are not available on the Eurostat database).
- Imports of UTIPULP countries from UTIPULP countries have been taken out. As a consequence, we consider UTIPULP as being one country.
- The pulp grades covered by this survey are the following, according to Combined Nomenclature codes :
    - o 4703 : *Chemical woodpulp, soda or sulphate, other than dissolving grades (including bleached and unbleached, hardwood and softwood categories)*
    - o 4704 : *Chemical woodpulp, sulphite, other than dissolving grades (including bleached and unbleached, hardwood and softwood categories)*

¾ ***General evolution of the pulp imports***

The imports of market pulp by the UTIPULP countries, amounted to 10.3 million tons in 2006, down by 16% compared to 2005. As a reference, the UTIPULP consumption in 2006 was around 14.3 million tons, down by 1.3%. Please note that these two figures are not directly comparable, as the intra-UTIPULP trade is not taken into account and that the customs figures also include the captive pulp, which is out of scope of UTIPULP surveys. The UTIPULP imports grew at an annual growth rate of 0.4% between 1995 and 2006, whereas the UTIPULP consumption grew by around 1% per year between 1997 and 2006.

¾ ***Origin of the pulp imported by UTIPULP countries***

The main evolution over the last ten years is the shift from a mainly Northern European-Northern American supply to a Northern America-Southern American supply. Whereas in 1995, North America accounted for 46% of the imports into UTIPULP countries, this share was only 32% in 2006. On the other hand South America doubled its share in ten years, going from 13% to 35%.

North European supply declined over the period (from 29% to 22%). Asian supplies are still marginal and account only for about 2.6% of the imports (Indonesia representing 2.3%).

In 2006, Brazil was the main exporter to UTIPULP countries (26%), followed by the USA (18%) and Canada (14%). Sweden and Finland are now ranked 4th and 5th external suppliers to the UTIPULP region, with respectively 12 and 10% of the global imports

In 2006, whereas the hardwood pulp monthly imports have been relatively stable, with a monthly average of 400 000 tons, the softwood imports dropped down by 24%. This implied the lowest global imports, at least since 2000.

A complete set of graphs is attached to this document

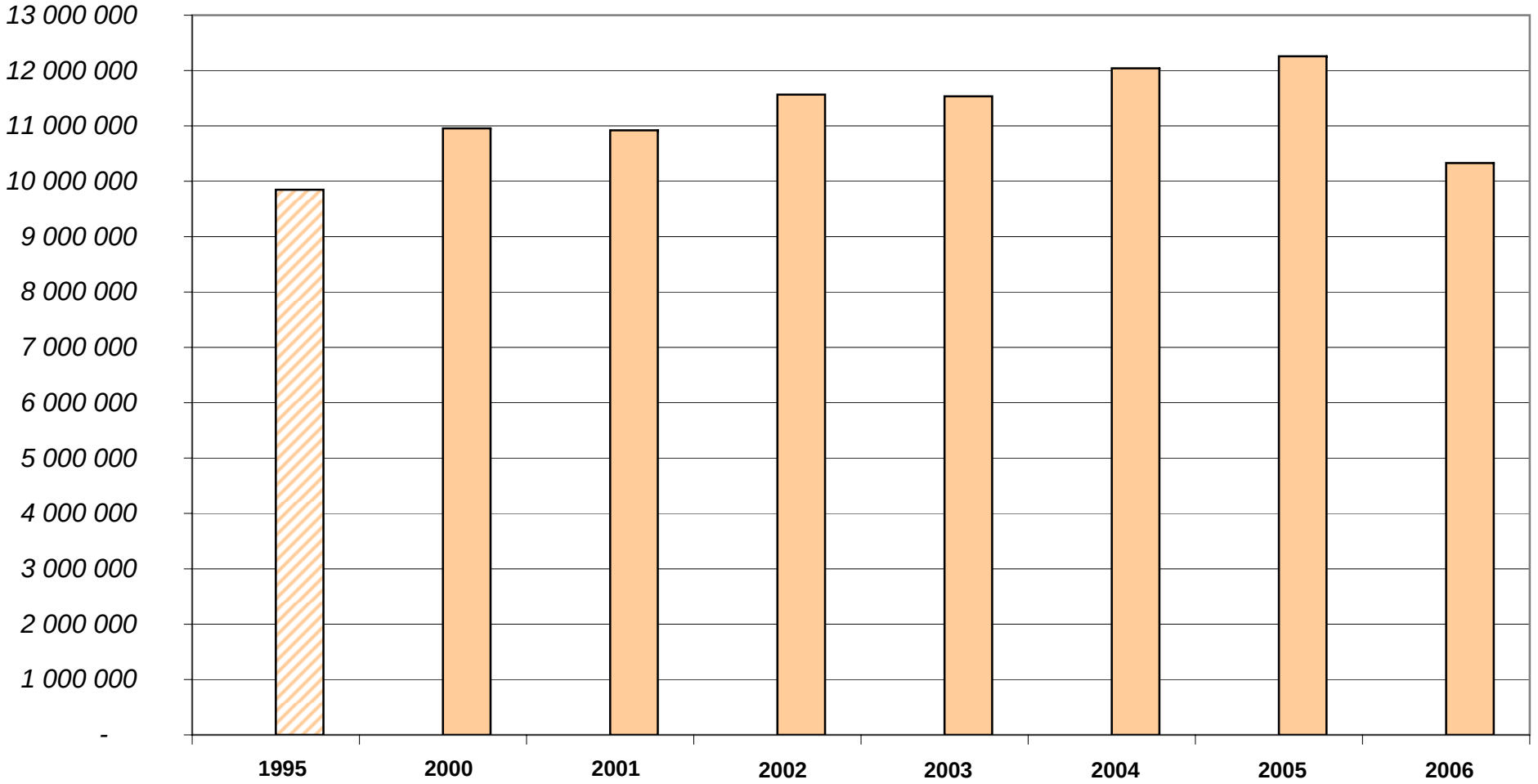
* * * * *

ANNUAL STATISTICS
Long term evolution

UTIPULP WOODPULP IMPORTS

1995-2006

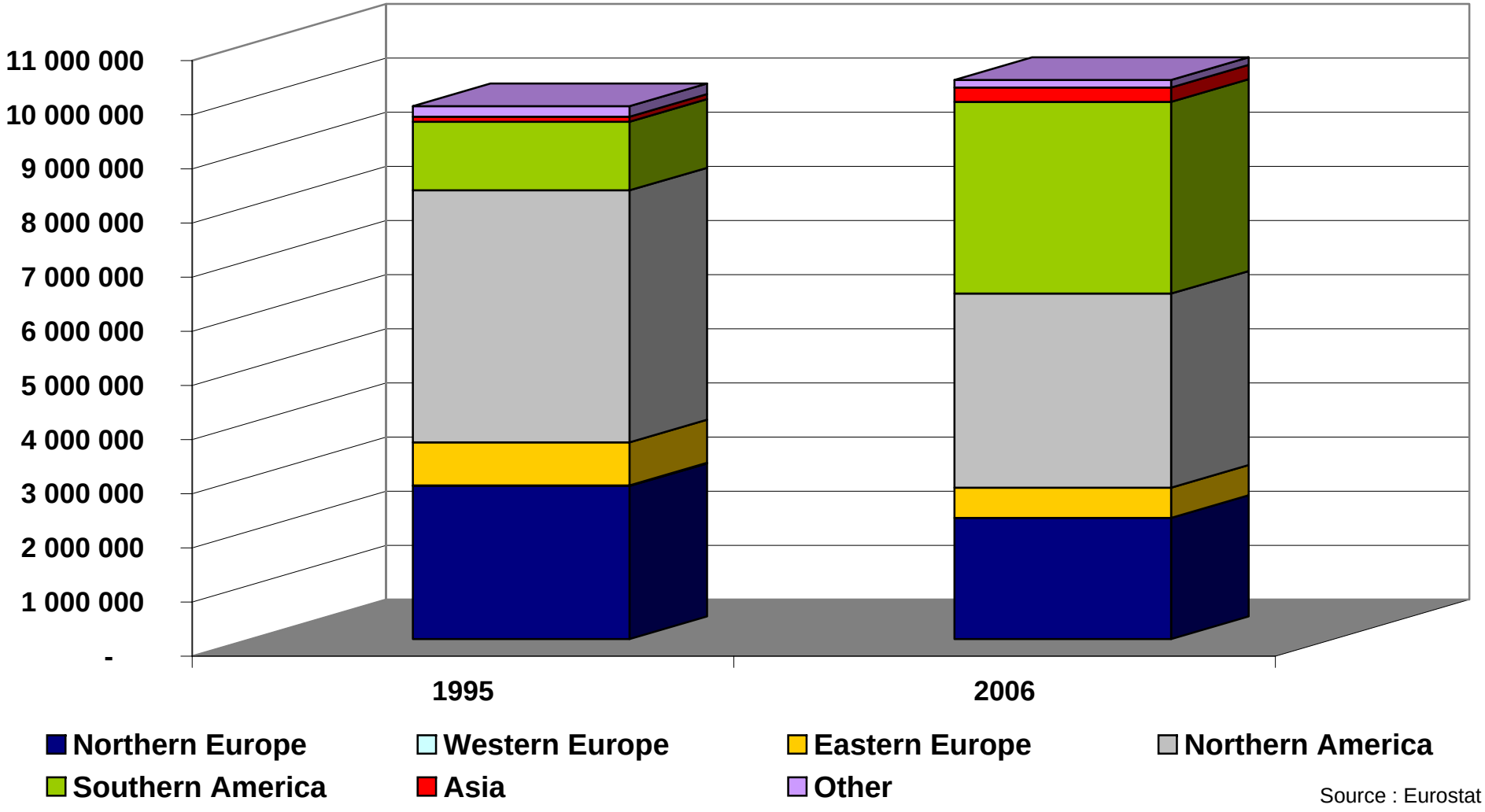
(in tons)



Source : Eurostat

EVOLUTION OF THE PULP IMPORTS BY UTIPULP COUNTRIES

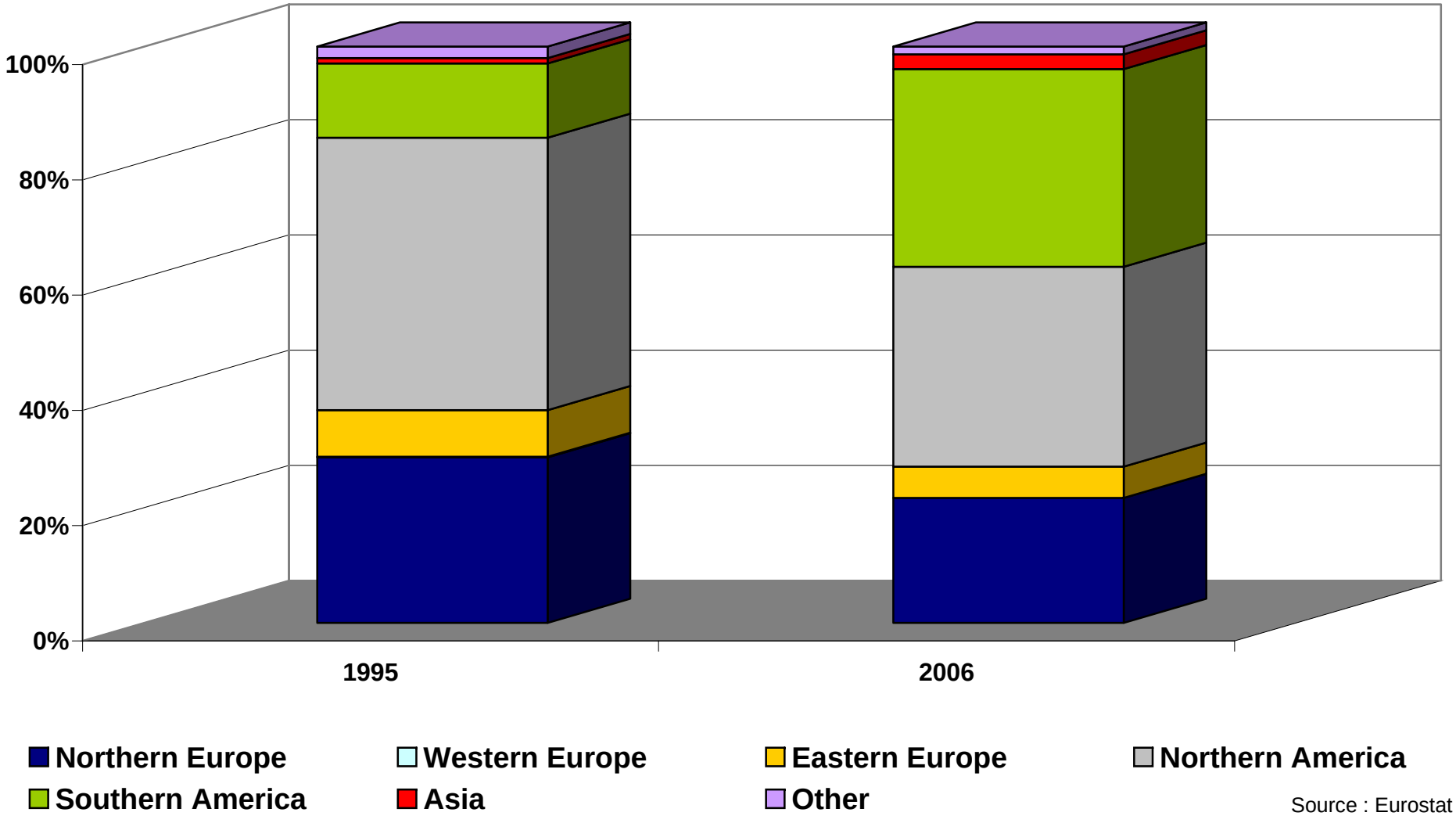
Per Geographical Zone - In tons



Source : Eurostat

EVOLUTION OF THE PULP IMPORTS BY UTIPULP COUNTRIES

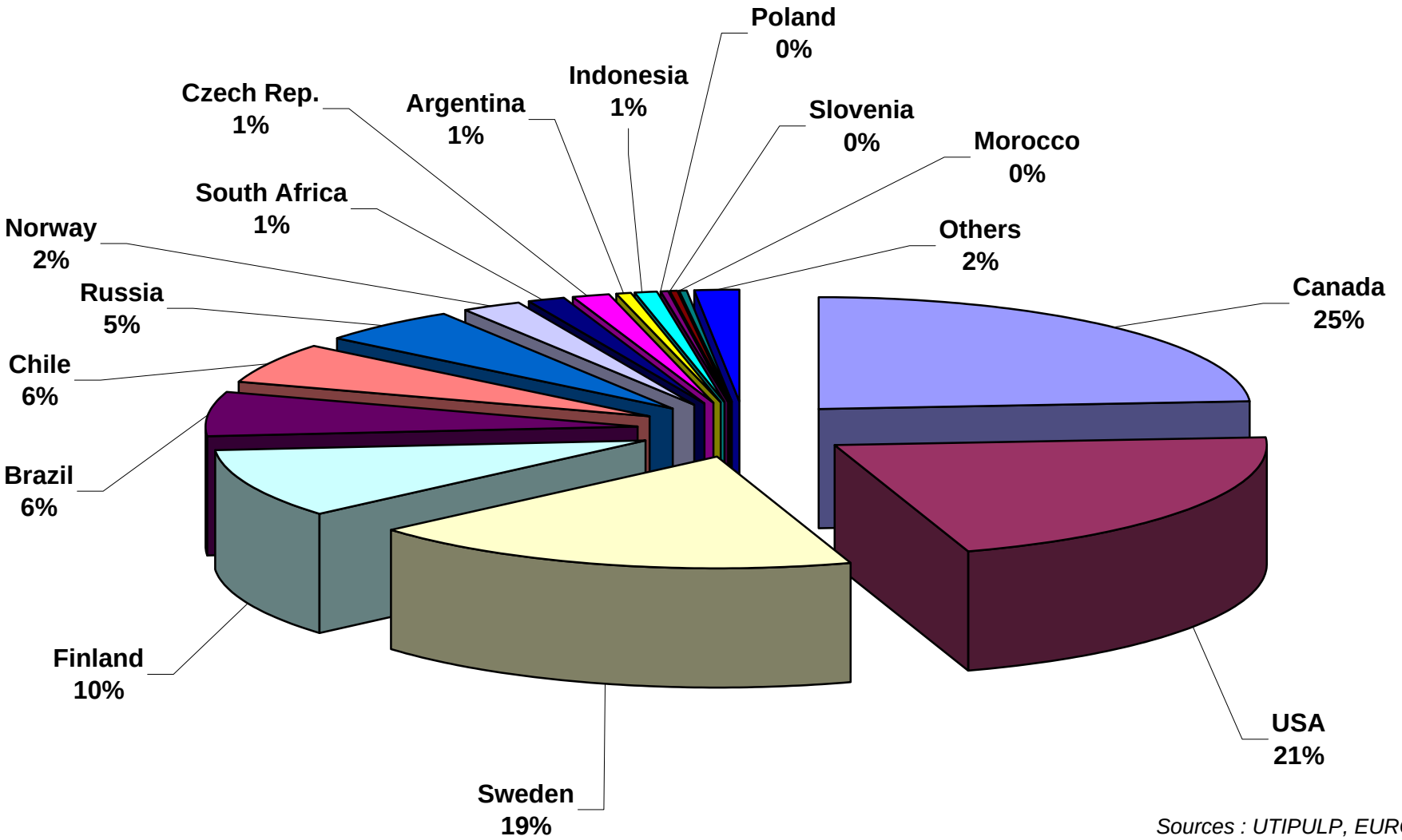
Per Geographical Zone



Source : Eurostat

UTIPULP Imports

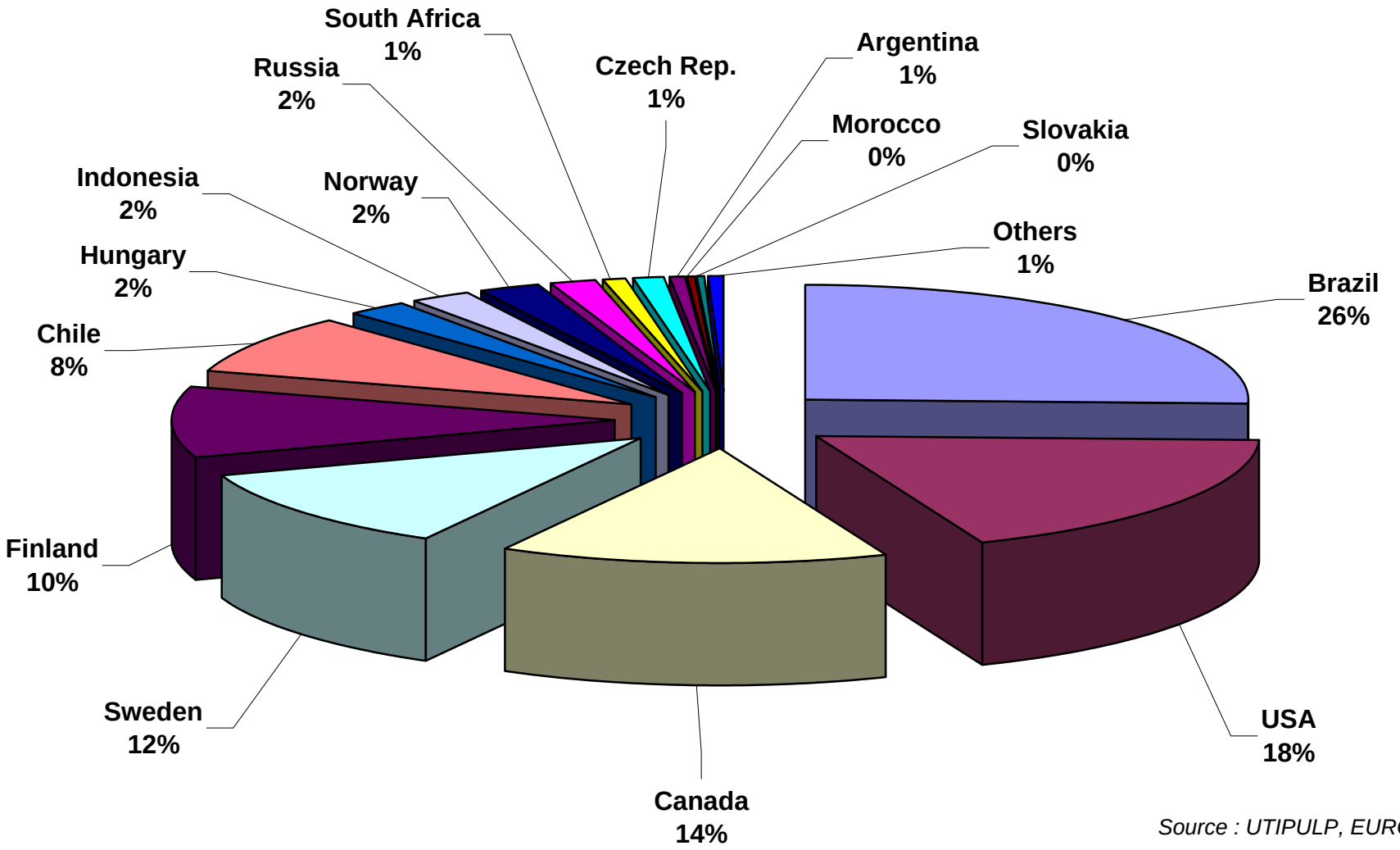
Share by country of origin - 1995



Sources : UTIPULP, EUROSTAT

UTIPULP Imports

Share by country of origin - 2006

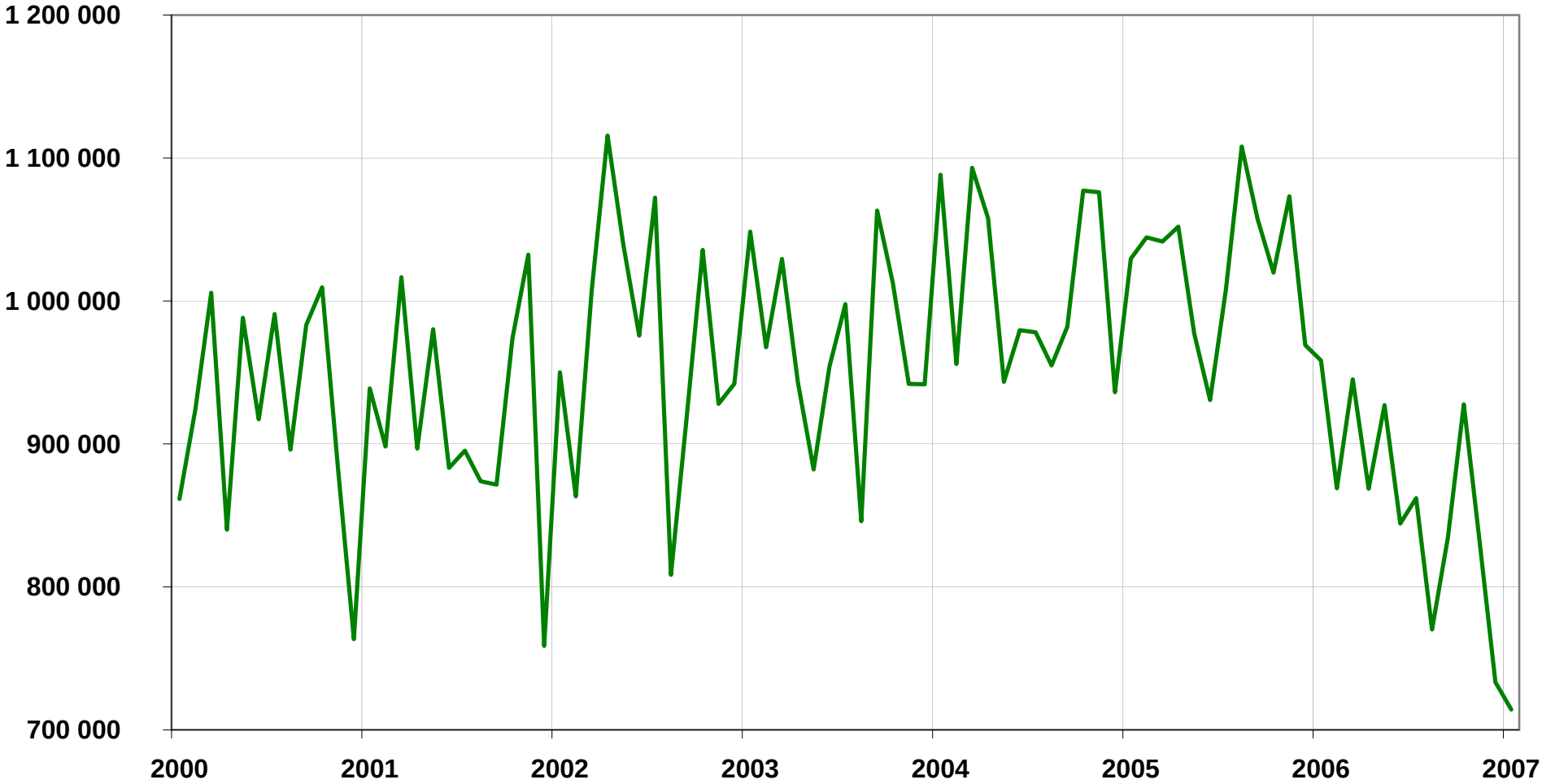


Source : UTIPULP, EUROSTAT

MONTHLY STATISTICS
Short term evolution

UTIPULP MONTHLY IMPORTS OF WOODPULP

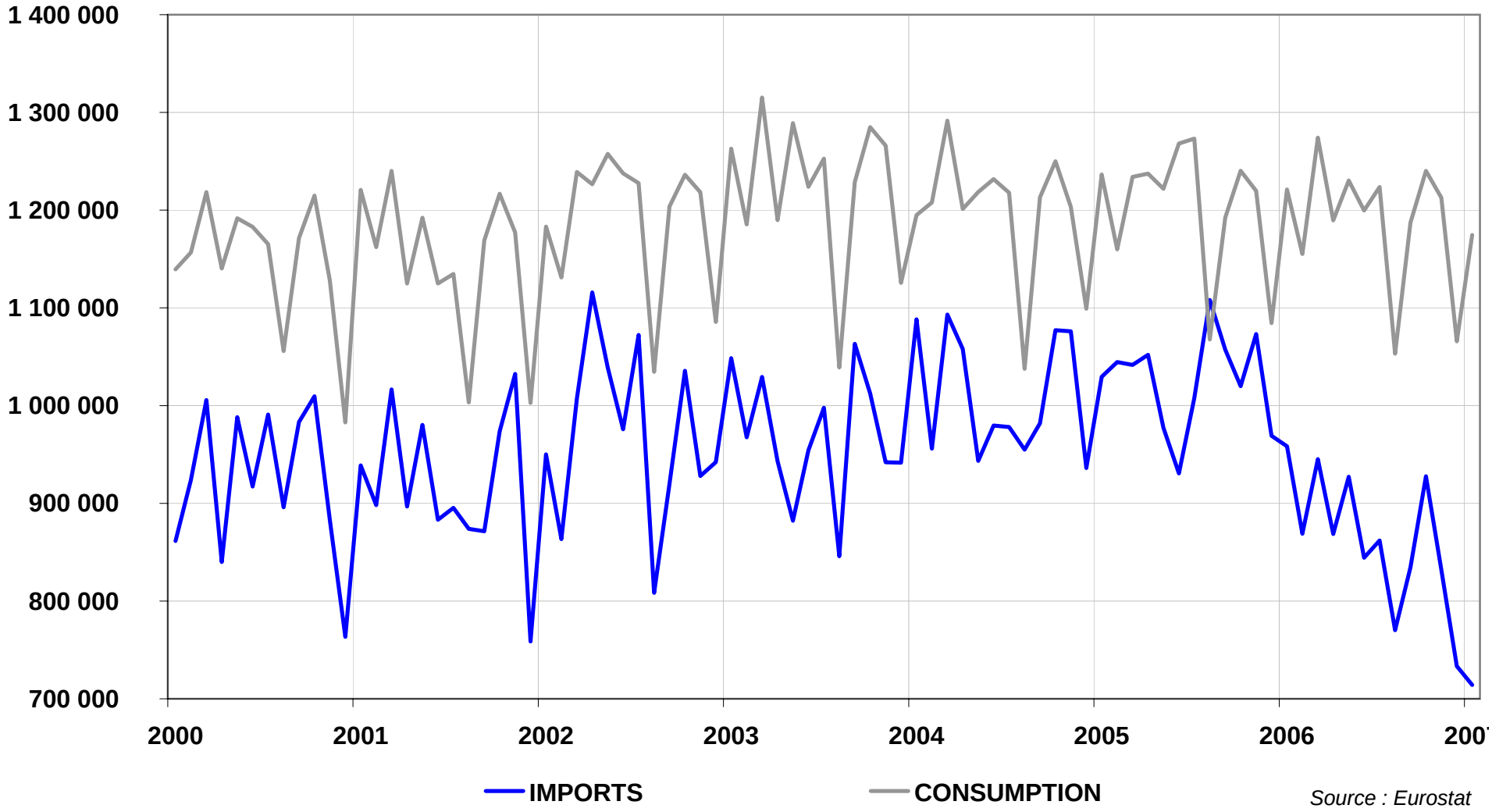
In tons



Source : Eurostat

UTIPULP MONTHLY IMPORTS OF WOODPULP

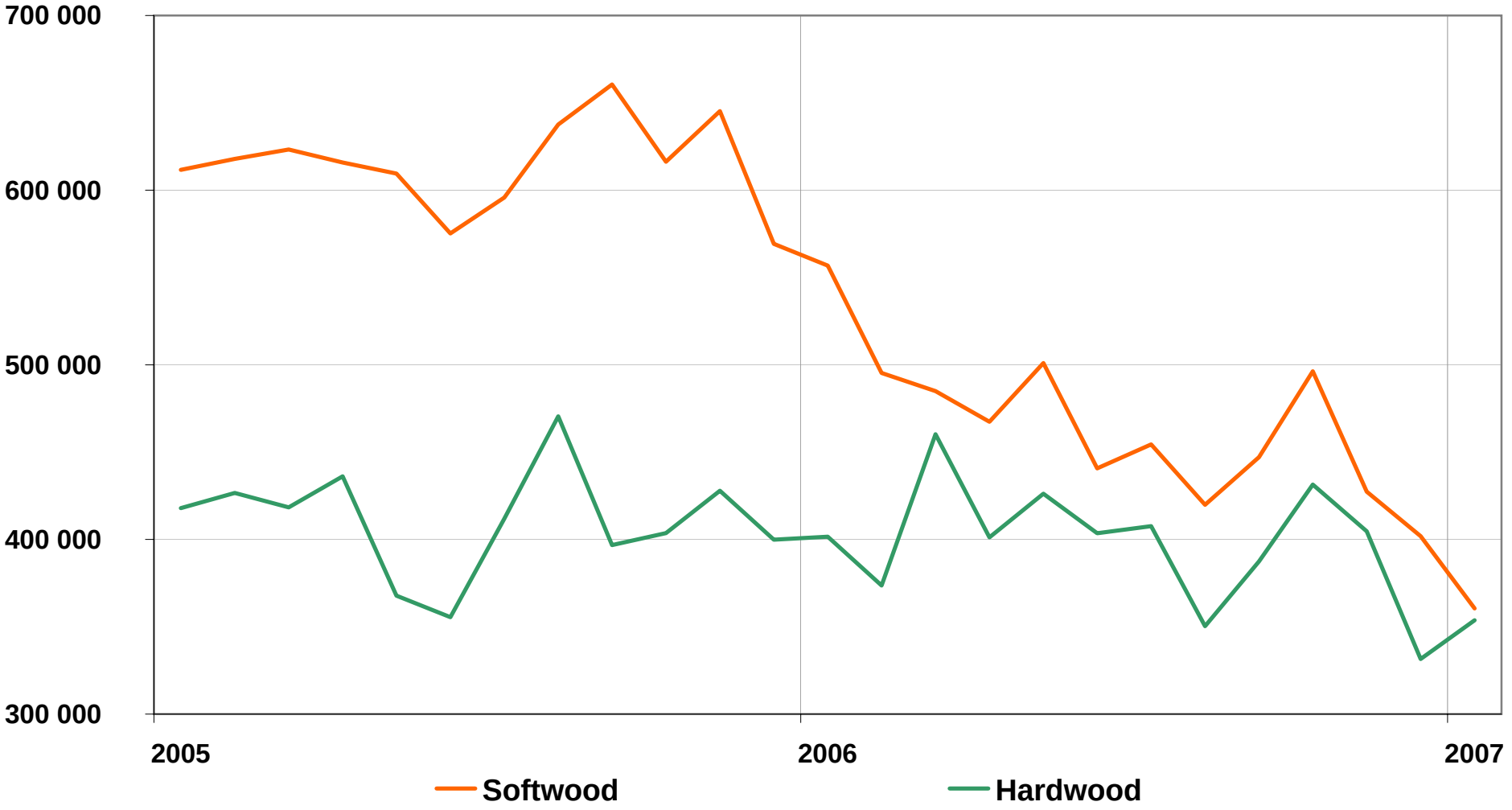
In tons



Source : Eurostat

UTIPULP chemical pulp imports by grades

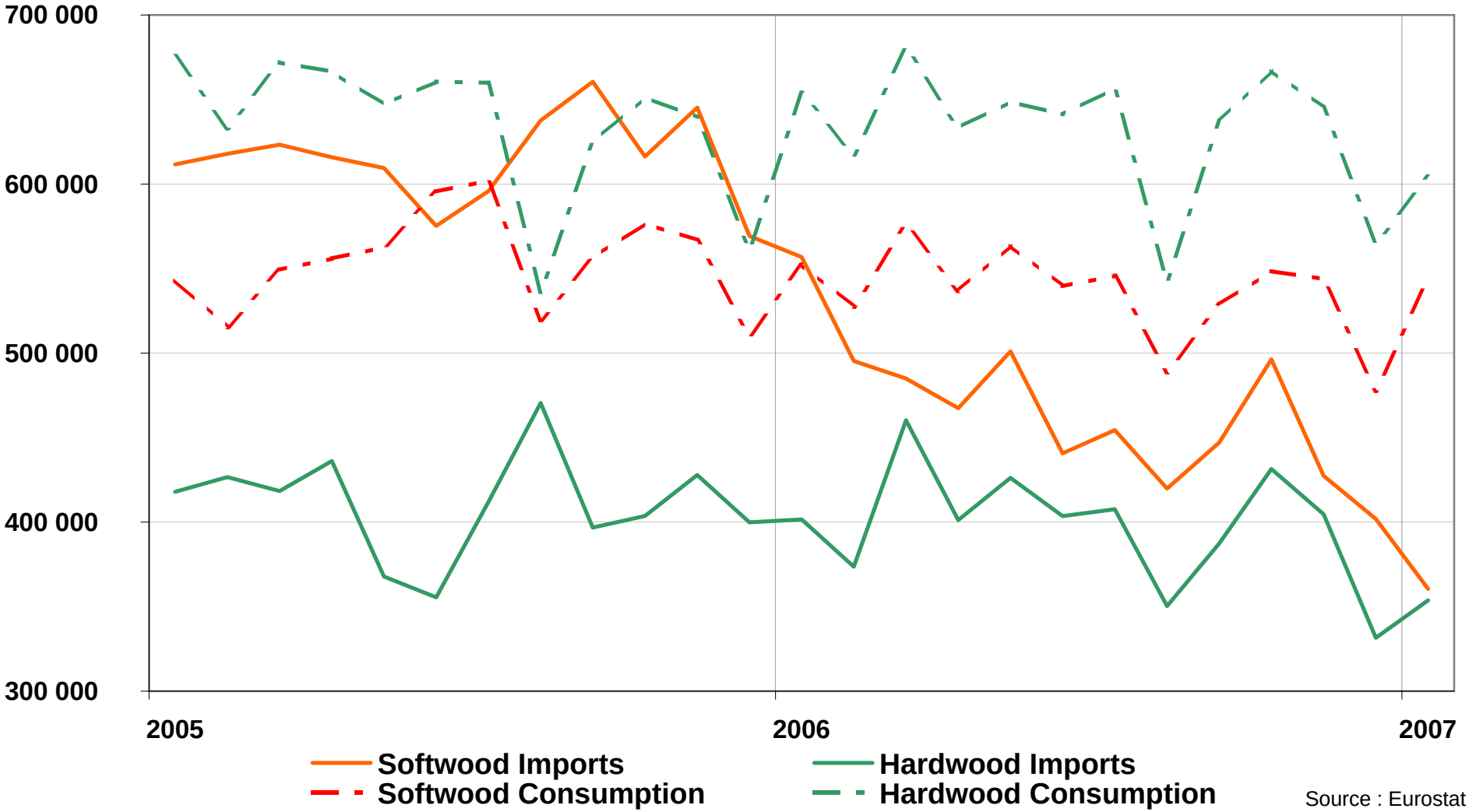
2004-2006



Source : Eurostat

UTIPULP chemical pulp imports and consumption by grades

2004-2006



Source : Eurostat

UTIPULP
The Group of European Market wood pulp users

Presentation of the economic situation in each member country

Austria

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ %)*	3,2	3,0	2,4
Business investment *(Δ %)*	4,7	5,5	3,4
Industrial production *(Δ %)*	7,2	6,0	3,3
Consumer prices *(Δ %)*	1,5	1,7	1,8
Unemployment rate *(%)*	4,7	4,2	4,1

Pulp & paper industry situation

	12 months 2006 (in KT)
Pulp production	125
Paper and board production	3 368
- Graphic papers	1 430
- Packaging grades	1 829
- Hygiene	109
Exports	2 963
Imports	3 134
Consumption	3 538

- **Record production** of paper in 2006
- Only moderate growth in chem. pulp, partly because of **wood shortages**
- Due to January storms wood supply in 1st half year 2007 sufficient
- Sharply **rising costs**, esp. in timber and energy
- Board mill at Timmersdorf went bankrupt and had to be shut

Colmar – April 20th, 2007

Belgium

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ %)*	3,0	2,2	2,2
Household consumption *(Δ %)*	2,4	2,8	2,0
Consumer prices *(Δ %)*	2,3	1,9	2,2
Unemployment rate *(%)*	8,4	8,2	8,0

Pulp & paper industry situation

	2 months 2006 (in KT)	2 months 2007[1] *(in KT)*	Δ%
Pulp production	84	81	-3,6
Paper and board production	321	323	0,6
- Graphic papers	241	241	0,0
- Packaging grades	63	65	3,2
- Hygiene	17	17	0,0

- Increase of the **energy costs**
- Increase of the **wood prices**
- Decrease of the **wood availability**
- **Low profitability** in general, especially in the graphic sector
- Good activity level in paper for **packaging**

Colmar – April 20th, 2007

Denmark

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ %)*	3,1	3,2	3,2
Household consumption *(Δ %)*	2,2	2,3	2,3
Business investment *(Δ %)*	2,5	2,5	2,5
Industrial production *(Δ %)*	2,2	2,3	2,3
Consumer prices *(Δ %)*	1,9	1,9	1,9
Unemployment rate *(%)*	3,9	2,3	2,3

Pulp & paper industry situation

	Year 2005	Year 2006
Pulp production DIP (in tons)	6800	6800
Paper and board production (in tons)	20000	20000
- Graphic papers (in tons)	11000	11000
- Packaging grades (in tons)	9000	9000
Consumption (paper) (in M euros)	120	120

Colmar – April 20th, 2007

France

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ %)*	2,0	1,9	2,0
Household consumption *(Δ %)*	2,7	2,3	2,2
Business investment *(Δ %)*	3,8	3,6	3,5
Industrial production *(Δ %)*	1,3	1,2	1,7
Consumer prices *(Δ %)*	1,7	1,4	1,6
Unemployment rate *(%)*	9,1	8,5	8,2

Source : Consensus Forecast

- Growth expected in France in 2007 at a similar level to 2006.
- Internal demand would benefit from higher revenues, the inflation rate being relatively low (partly due to the strong Euro).
- External demand is also expected to remain strong.
- Companies confidence still high, but deceleration awaited.

France

Pulp & paper industry situation

	2 months 2007 (in KT)	2 months 2006 (in KT)	Δ%
Pulp production (2 months)	2998,7	3266,6	-8,2
Paper and board production (2 months)	1599,5	1733,7	-7,7
- Graphic papers (2 months)	722	758	-4,7
- Packaging grades (2 months)	677,2	774,9	-12,6
- Hygiene (2 months)	124,2	121,8	2,0
Exports (paper) (1 month)	440,3	482,1	-8,7
Imports (paper) (1 month)	539,8	542	-0,4
Apparent Consumption (paper) (1 month)	925,7	956	-3,2

- Evolution of the production (*cf above table*) not reflecting the market evolution.
- In 2006 : 600 KT of capacities have been closed (5% of the installed capacity).
- 10 mills closed.
- Demand seem stronger at the beginning of 2007 and official prices indexes on average going up since September 2005, but big differences between the grades.
- Strong concerns : still high prices for energy, chemical products, increasing prices for starch, wood price and availability.

Germany

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ %)*	2.8	2.4	2.8
Household consumption *(Δ %)*	0.8	0.2	1.8
Business investment *(Δ %)*	8.1	6.2	n.a.
Industrial production *(Δ %)*	6.1	6.3	n.a.
Consumer prices *(Δ %)*	1.4	1.9	n.a.
Unemployment rate *(%)*	9.8	9.0	8.0

Latest figures of the "Five Economic Institutes" are not available

Pulp & paper industry situation

	2 months 2006 (in KT)	2 months 2007 *(in KT)*	Δ%
Pulp production	852	837	1.7
Paper and board production	3.831	3.627	5.6
- Graphic papers	1.773	1.732	2.4
- Packaging grades	1.553	1.509	2.9
- Hygiene	215	199	8.4

- **Cost increases** by wood prices

Colmar – April 20th, 2007

Italy

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ %)*	1,9	1,8	1,7
Household consumption *(Δ %)*	1,5	1,6	1,4
Business investment *(Δ %)*	2,4	3,0	2,8
Industrial production *(Δ %)*	1,9	1,5	1,5
Consumer prices *(Δ %)*	2,1	1,8	2,0
Unemployment rate *(%)*	6,8	6,4	6,0

Source: ISAE, Consensus, Prometeia

2006 Results

•Annual growth : +1,9%, the best result from 2000, (gap of 0,9 points respect to the Euro Area).
•Inflation rate : + 2,1%. Such result appears positive and shows that rises in production prices weren't charged on consumption ones.

Forecasts

•The growth speed up in the last quarter 2006 guaranteed a minimum growth of 1,2% in 2007.
• Medium growth of 1,8% for 2007.
•The domestic demand will be the main driver, while exports should also develop.
• If crude oil quotations will be confirmed on more moderate levels than those registered during 2006, also the inflation developments should keep moderate (+1,8%).

Colmar – April 20th, 2007

Italy

Pulp & paper industry situation

	12 months 2006 *(in KT)*	12 months 2005 (in KT)	Δ%
Pulp production (woodpulp)	516	502	-2.6
Paper and board production	10 008	9 999	0,1
- Graphic papers	3 381	3 470	-2.6
- Packaging grades	4 661	4 541	2,6
- Hygiene	1 411	1 440	-2.0
- Others	556	549	+1.3
Exports	3 491	3 459	+0.9
Imports	5 177	5 192	-0.3
Consumption	11 694	11 733	-0,3

2006 results

• **Difficulties** increased during 2006 : rises of energy costs, restart of increases on fibrous raw materials prices.
• **Reorganization** and **rationalization** of industrial activity intensified during the year. Continued during first months 2007.
• 2006 volumes and prices : **diversified trends for different products**.
• From 2000 to 2006 while production grew, turnover decreased, in presence of production costs in continuous and sustained growth.

2007 indications

• **Demand of paper and board products expected to grow moderately** , but concerns remain still very strong for:
- the high levels of energy prices;
- the rises in prices of fibrous raw materials (strong Chinese and Asian demand, increasing European demand of wood for non paper uses, reduced availability of Canadian sawmill chips, recent Russian decision to double the customs on the exports of wood).

Colmar – April 20th, 2007

Netherland

Macroeconomic situation

	2006	2007 (forecast)	2005
GDP *(Δ %)*	2.2	2.4	0.5
Unemployment rate *(%)*	6.4	6.3	6.8

Source: UNICE

Pulp & paper industry situation

	12 months 2005 (in KT)	12 months 2006 *(in KT)*	Δ%
Pulp production	135	125	-7,4
Paper and board production	3 471	3 368	-3,0
- Graphic papers	1 352	1 430	5,8
- Packaging grades	1 976	1 829	-7,4
- Hygiene	125	109	-12,8
Exports	3 023	2 963	-2,0
Imports	3 022	3 134	3,7
Consumption	3 470	3 538	2,0

Colmar – April 20th, 2007

Portugal

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ %)*	1,3	1,8	2,1
Household consumption *(Δ %)*	1,2	1,5	1,7
Business investment *(Δ %)*	-3.1	0,0	3,9
Industrial production *(Δ %)*	2,6	n. a.	n. a.
Consumer prices *(Δ %)*	3,1	2,3	2,4
Unemployment rate *(%)*	7,7	7,5	7,2

Portugal

Pulp & paper industry situation

		12 months 2006 (in KT)	Δ% (2006/2005)
Pulp production		2 064	3.7
Paper and		1 635	1.8
- Graphic		1 044	0.7
- Packaging		529	4.8
- Hygiene		62	-3.1
Exports	Pulp	1 440	14.3
	Paper	1 294	4.9
Imports	Pulp	90	-5.6
	Paper	1 874	-1.6
Consumption	Pulp	1 098	9.3
	Paper	1 107	10.1

• >95% of pulp and paper production done by four companies → consolidation process.
• Increased pulp and paper capacities were announced and new developments are expected at any moment.
• Increasingly difficulties in securing wood needs (forest fires from previous years, increasingly higher export volumes both of round wood and wood chips for energy are adding further difficulties to domestic industrial wood supply. Portuguese pulp and paper industry is now importing wood reducing pressure on existing forest resources. Sawmills are suffering from lack of suitable assortments.
•New biomass based energy facilities are under construction and concern for higher costs for raw materials exists. Energy policies providing subsidies for green KWh produced will further mobilize wood for energy production. Higher energy prices and climate change related policies is affecting competitiveness of industry

Spain

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ%)*	3,9	3,5	3,0
Household consumption *(Δ%)*	3,7	3,4	3,1
Business investment *(Δ%)*	6,3	4,2	3,8
Industrial production *(Δ%)*	3,9	3,5	3,2
Consumer prices *(Δ%)*	2,7	2,4	2,2
Unemployment rate *(%)*	8,5	8,0	8,0

- Despite hefty economic growth with an increase in GDP of 3,9%, inflation went up by 2,7%, which translates into a **significant deterioration of competitiveness** of 1,5% in 2006 based on the inflation differential with the rest of Euro-zone countries.

Spain

Pulp & paper industry situation

	Year 2006	Year 2005	Δ%
Pulp production	2.037,7	1.972,9	3,3
Paper and board production	6.353,3	5.696,3	11,5
- Graphic papers	1.973,2	1.718,8	14,8
- Packaging grades	3.215,9	2.921,3	10,0
- Hygiene	607	540	12,3
- Others	557	516	8,0
Exports (paper)	2 798	2 087	34,0
Imports (paper)	4 312	3 779	14,1
App. Consumption (paper)	7 868	7 389	6,5

• Start-up in 2006 of new installations in the newsprint, personal hygiene and sanitary papers, and papers for corrugated board sectors, which have led to an overall increase in output of 11,5%, a much higher figure compared to how other neighbouring countries have developed.

• This increased capacity does not hide the fact that in other sectors - Kraft sacks, light cardboard and other paper and board grades - the real situation is that production went down in 2006 compared to the previous year.

• Impact of increased energy costs, which are generally difficult to push down to the price of the end product and therefore deteriorate the economic results for many companies and which in Europe have led to the closure of many plants, with a subsequent loss of about 7% of total installed capacity.

Switzerland

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ %)*	2.2	1.7	1.7
Household consumption *(Δ %)*	2.0	1.8	1.5
Business investment *(Δ %)*	5.3	5.0	2.8
Industrial production *(Δ %)*	1.9	n.a.	n.a.
Consumer prices *(Δ %)*	1.1	0.9	1.1
Unemployment rate *(%)*	3.3	2.8	2.6

In real terms, 4th Quarter value compared to same quarter the year before, NOT annual average values

Switzerland

Pulp & paper industry situation

	12 months 2006 (in KT)	Δ% 12-06 / 12-05
Paper and board deliveries	1 685	0,0
- Graphic papers	644	+1.6
- Packaging grades	471	- 10.0
- Hygiene	194	- 11.0
Exports (deliveries)	1 160	- 3.7
Imports (trade custom stat)	1 131	+ 0.6
Consumption	1 656	- 0.9

- Closures of two mills
- Energy costs (after many years of comparatively disadvantageous (= higher) electricity costs we are now on same level as in neighboring countries)
- Scarce wood supply, drastic price increases
- Drastic price increases for recovered paper

United Kingdom

Macroeconomic situation

	2006	2007 (forecast)	2008 (forecast)
GDP *(Δ %)*	1.8	2.6	3.0
Household consumption *(Δ %)*	4.7	4.3	4.1
Gross Fixed investment *(Δ %)*	2.8	4.0	3.5
Manufacturing production *(Δ %)*	0.8	1.2	1.0
Retail prices *(Δ %)*	2.9	2.85	3.2
Unemployment rate *(%)*	4.8	5.25	5.5

Colmar – April 20th, 2007

United Kingdom

Pulp & paper industry situation

	1 month 2007 (in KT)	1 month 2006 (in KT)	Δ%
Paper and board production	442.2	491.5	-10.0
- Graphic papers	193.1	214.8	-10.1
- Packaging grades	153.0	184.1	-16.9

Colmar – April 20th, 2007