

1. Italy's recycling and recovery targets.

This year Italy will fulfill the targets set in '97 by Legislative Decree 22/97, which incorporated the European Packaging Directive into Italian legislation, and which aims at recycling 45% and recovering 50% of the total amount of paper and board put on the market by the end of 2001.

PAPER AND BOARD PACKAGING WASTE MANAGEMENT SCENARIOS - 1996-2002 TREND ANALYSIS (.000t/YEAR).

Year	1996	1997	1998	1999	2000	2001 *	2002 *
Apparent packaging consumption	3.082	3.936	4.023	4.105	4.185	4.260	4.332
Recycling	1.392	1.427	1.489	1.600	1.790	1.917	2.032
Energy recovery and other forms of recovery	91	91	118	130	150	213	213
Total recovery	1.483	1.518	1.607	1.730	1.940	2.130	2.245
% Recycling	36	36	37	39	43	45	47
% Total recovery	39	39	40	42	46	50	52
* Forecast							

This is a highly satisfactory result, which brings Italy closer to the most advanced Countries with greater experience in this field. The increase in paper and board collection and recycling (both in absolute terms and as a percentage of the amount put on the market) has also led to a significant reduction, over the last few years, in imports of recovered paper from abroad. In 1999 the availability of domestic recovered paper rose by approximately 10% compared to the previous year. Conversely, recovered paper imports dropped 17%, while exports tripled.

The year 2000 also recorded a 13% growth in the availability of national recovered paper, while domestic paper and board production rose by only 5%.

This is now a well-consolidated trend: in fact, as from 1990s there has been a steady rise both in the consumption of recovered paper (from 3.100.000 to 4.600.000 tons) and, at the same time, in the availability of domestic recovered paper (from 2.400.000 to 4.100.000 tons).

RECOVERED PAPER APPARENT COLLECTION 1998-2000

(Source: ISTAT figures processed by ASSOCARTA).

	Apparent Collection		Import		Export		Consumption	
	.000 t	%	.000 t	%	.000 t	%	.000 t	%
1998	3.303	7,3	853	-7,8	41	-20,8	4.115	4,1
1999	3.628	9,8	706	-17,3	127	205,8	4.207	2,2
2000	4.096	12,9	741	4,9	218	70,7	4.620	9,8

The amount of recovered paper exported in 2000 reached significant levels, also leading to an appreciable improvement in the balance of payments.

1.1 Monitor Internazionale Maceri.

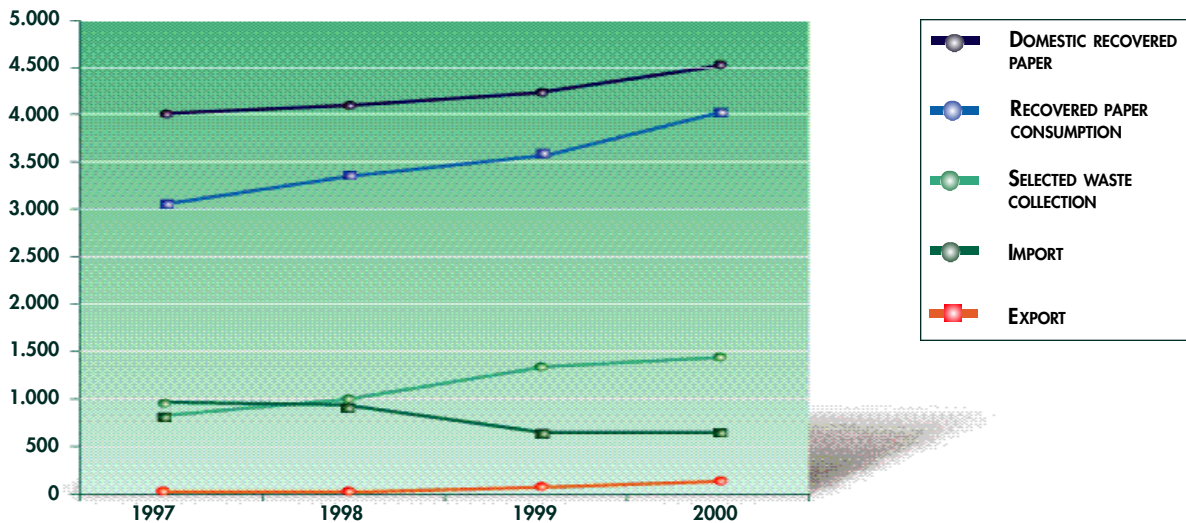
At the beginning of 2001, in order to keep a close watch on global trends in recovered paper provided by selected waste collection, Comieco, in partnership with Agici Finanza d'Impresa, started publishing a three-monthly newsletter entitled MIM – Monitor Internazionale Maceri. This publication, which is very handy for firms operating in the paper production sector, provides a wealth of data and information on the international scenario and on concrete trends in the Italian market.



2. Selected waste collection and partnerships with local councils.

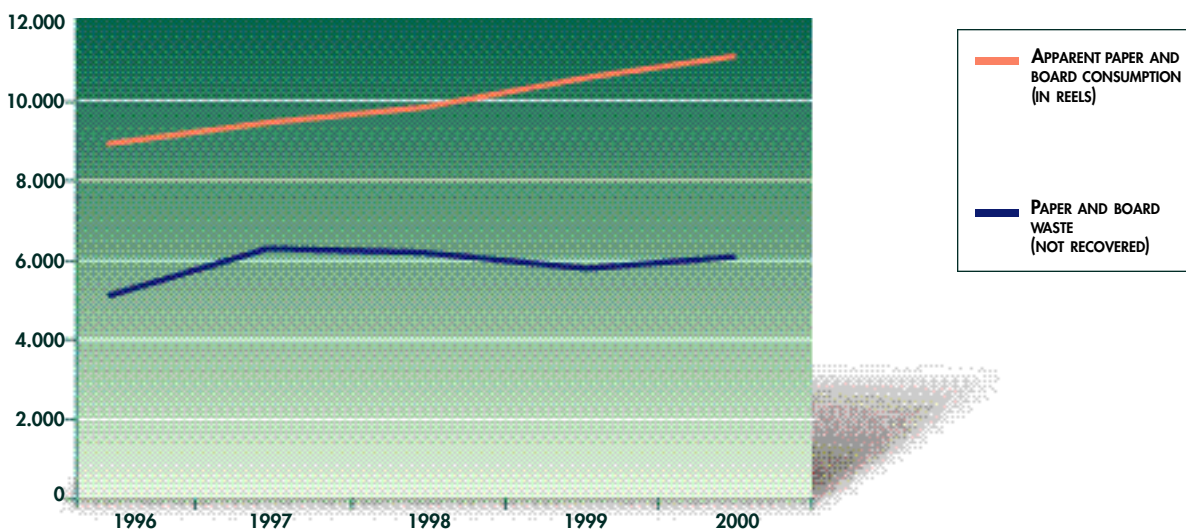
The growth in the domestic production of recovered paper is largely due to the increase in selected waste collection. This too is an important economic and social achievement: today most Italians are involved in separating their waste into glass, aluminium, plastic, wood, etc. for collection by local council-run schemes, in partnership with Comieco and other consortia, as established by Legislative Decree 22/97.

Selected waste collection, recovered paper consumption and availability of domestic recovered paper (.000 t).



One immediate consequence of this is also the fall – both in percentage and absolute terms – in the amount of paper and board packaging waste that goes to landfill. This was the main objective of European Packaging Directive 94/62 and of Legislative Decree 22/97, which incorporated it into Italian legislation in 1997. One of Italy's notable achievements is that, in spite of a rise in the total amount of packaging put on the market each year, the selected waste collection and recycling scheme has led to a significant reduction in the impact on the environment.

These data point to the profound changes that have taken place in the customs of the Italians and in their relationship with the environment. The simple daily task of separating domestic waste into types of product testifies to the Italians' heightened awareness of the issue of sustainable development. It is a process with wide-reaching implications, which cuts right across the generations and across all levels of society throughout the Peninsula.



3. Comieco in figures.

Formed back in 1985 as a free association of pulp & paper sector companies sensitive to environmental issues, since 1997 Comieco has become a "National Consortium for the Recovery and Recycling of paper and board packaging waste", as laid down by Legislative Decree 22/97.

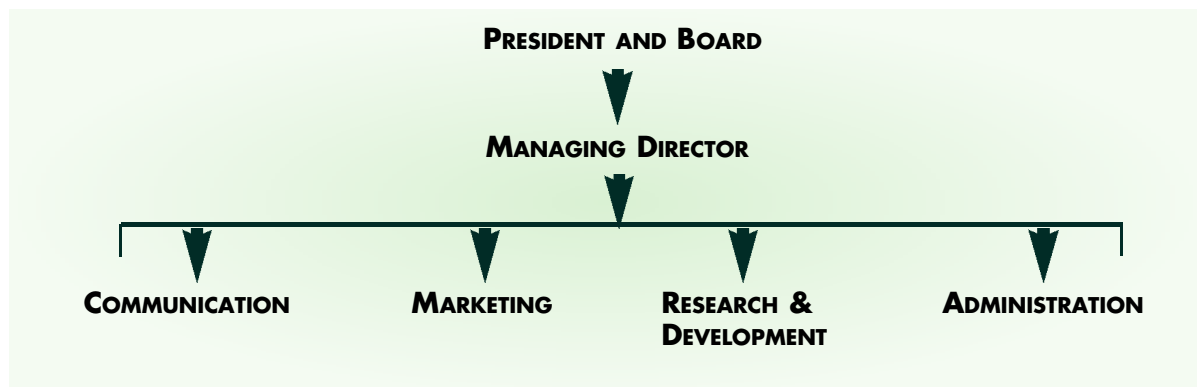
Comieco's commitment goes well beyond the statutory regulations imposed by law: in fact, the Consortium has voluntarily accepted responsibility for intervention at every stage of the process that recovers and recycles paper and board waste as a whole and not only packaging waste.

This commitment is shared by almost all companies in the pulp paper sector: by March 2001 Comieco membership numbered 3.453 firms, representing over 95% of domestic production

Comieco manages a budget of 120 billion lire (62 million euro): most of the money (95%) goes to the local municipalities as compensation for the collection operations (National Agreement sealed by Anci and Conai).

Comieco Organization is composed by 16 people

COMIECO ORGANIZATION.



Together with Conai (the national packaging consortium), Comieco manages the collection, recovery and recycling of all the paper and board packaging and paper and board material provided by the selected waste collection system run by the local Councils.

The selected waste collection system is financed by the "Conai Environmental Contribution" – of 30 lire per kg – which has been applied directly in the invoices issued by paper and board packaging manufacturers to their end users since October 1st 1998. Comieco manages the resources collected in this way and redistributes them to the local Councils, in proportion to the quantities of paper and board waste that they collect.

4. The Conai-Anci agreement, one year's figures.

Year 2000 saw the application of the agreement, signed in July 1999 by Conai and by the association of Italian Town Councils (Anci), on the subject of selected packaging waste collection and energy recovery management. This agreement came into effect with a series of contracts underwritten by Comieco with the local authorities or with the selected waste collection companies.

The final figures for this first year's implementation were decidedly positive: Comieco has stipulated contracts with the councils of 2,375 towns, inhabited by roughly half the Italian population. Numerous further agreements, currently being finalized, should shortly bring the total number of inhabitants involved to around 38.000.000 (or 65% of the total population of Italy).

CONTRACTS FOR SELECTED WASTE COLLECTION AS OF 31 DECEMBER 2000.

Signed	Contracts	125
	Inhabitants	25.354.427
	Town Councils	2.375
Being prepared	Contracts	231
	Inhabitants	12.110.201
	Town Councils	1.389
Total	Contracts	356
	Inhabitants	37.464.628
	Town Councils	3.764
Contracts for energy recovery		19

5. Packaging and demographic trends.

Packaging has always been a tool at the service of merchandise bought and sold. And if it is true that an ever-increasing number of Italians and other Europeans are consuming more selectively and paying greater attention to unnecessary waste, it is equally true that this heightened environmental awareness is unable to counterbalance the widespread rise in the average citizen's purchasing power.

Statistics show, in fact, that the Europeans' ecological conscience has grown parallel to their rate of income; higher incomes, however, have always been synonymous with greater consumption of goods and services, and hence also of packaging.

There are then various other factors that come to play in packaging waste management, such as household size, for example. In fact, smaller households use a relatively greater amount of power and water, and in proportion they consume more goods, being unable to achieve the economies of scale possible for larger family units. But over the last 40 years, large families – with 6 or more components – have all but disappeared.

In the second half of the twentieth century, as shown in the table, the percentage of single-person households almost doubled: this has led – especially over the last few years – to an increase in individual packs and, therefore, to a proliferation in the amount of packaging.

Contemporarily, for the sake of convenience, as well as for health and hygiene reasons, the use of disposable products has increased.

HOUSEHOLD FOR NUMBER OF COMPONENTS - YEARS 1961-1998 COMPOSITION PERCENTAGES

(Source: ISTAT).

	1961	1971	1981	1991	1997	1997-98
1	10,6	12,9	17,9	20,6	21,3	21,3
2	19,6	22,0	23,6	24,7	26,3	26,4
3	22,4	22,4	22,1	22,2	23,6	23,6
4	20,4	21,2	21,5	21,2	21,1	21,0
5	12,6	11,8	9,5	7,9	6,1	6,0
6 or more	14,4	9,7	5,4	3,4	1,6	1,7
Total (thousands)	13.747	15.981	18.632	19.909	21.193	21.189
Average number of components	3,36	3,35	3,01	2,80	2,69	2,77

6. On-line sales.

Today, the advent of on-line shopping is posing a series of unknown problems. If some categories of goods appear to have lost their own material substance (such as music, software, and now even books), conversely the weight of packaging on the products that arrive directly from the producer to the end user's home is increasing. This phenomenon is currently being examined and there does not seem to be any single solution. The trend in the world of e-commerce generally points to an increase in the amount of packaging, and to the increasingly frequent use of multi-material packaging, which is more difficult to recycle.

7. Prevention of Waste.

The regulations currently in force in Italy give priority to preventing the production of waste. For Comieco the term "prevention" is synonymous with "innovation". In particular, product innovation leads to environmental benefits both at the production stage (by applying clean technologies that reduce scrap, emissions and energy consumption) and at the end-of-cycle management stage (less impact in waste management and in the recycling and recovery phase).

Everyone involved in packaging management is required to do their bit, also by looking for and adopting eco-innovative solutions.



“Prevention” for manufacturers means trying to use industrial processes that pollute less and reducing the environmental impact of their products at the end of their life cycle.

As regards packaging in general and paper and board packaging in particular, “prevention” is developed around four basic concepts:

- 1. systems that reduce the weight of packaging, without affecting performance;*
- 2. types of packaging that simplify recovery and recycling;*
- 3. packaging which, apart from requiring less energy thanks to the smaller amounts of material involved, occupy smaller volumes (with the same performance), thus offering economic and energy benefits at all the transport and storage stages;*
- 4. packaging that makes greater use of recycled fibre.*

In other words, this means aiming to produce lighter, less voluminous packaging that is easier to recycle or is made with recycled material, and produced with smaller amounts of material and energy.

On this subject, for the first time, in February 2000, Comieco published a special “Prevention File”: this was a catalogue of some fifty eco-innovative packaging projects selected by a qualified jury of experts nominated by companies operating in various manufacturing sectors.

In March 2001 the second edition of the “File” came out, with about forty projects chosen from those put forward by some 60 sixty firms. Again this second edition testifies to the manufacturers’ commitment to find packaging solutions that combine practicality and functionality with weight and volume reduction, or the greater use of recycled material, or easier recovery and recycling processes.

The 2001 edition also highlights some twenty solutions proposed by European manufacturers.

In collaboration with the Osservatorio Nazionale sui Rifiuti (National Waste Watchdog), Comieco launched a competition for the best projects achieved in 4 categories of eco-innovative packaging:

- Eco-packaging for e-commerce;*
- Rationalization of the goods-packaging ratio;*
- New sectors for the utilization of paper and board packaging waste;*
- From packaging to product (ideas for transforming disposable paper and board packaging into a product that can be used for other purposes).*

Comieco put up 50.000.000 lire for each category (for a total of 200.000.000) in order to totally or partially cover the expenses incurred to fulfill the project. A qualified jury chose the winners for each category and reserved a "special mention" for two other projects.

The winners of Ecopremio 2001:

Innovapack winner of category 1 - Eco-packaging for e-commerce, with the "Innovafile" project.

Assograph Italia, winner of category 2 – Rationalization of the goods-packaging ratio, with "Packaging for transporting car windows".

Policarta winner of category 3 - New sectors for the utilization of paper and board packaging waste, with the "All paper" project.

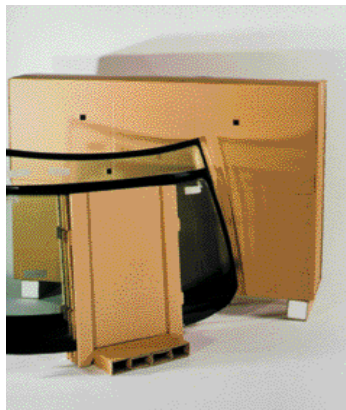
Ferrero winner of category 4 – From packaging to product, with "Cartellina Snoopy and friends".

Cartonificio Fiorentino, special mention for innovative ideas presented in particular with "Octagonal container for packaging and transporting cables".

Lineapack special mention for the large number of creative projects presented, in particular for the one on "Shaped wrappings for plants and flowers".



Innovopack



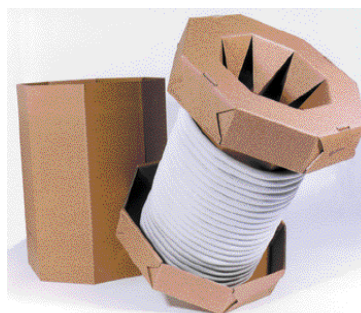
Assograph Italia



Policarta



Ferrero



Cartoncino fiorentino



Lineapack

Comieco is developing an important plan of study and research to be followed by technical publications. Seminars are also planned on particular issues: for example, the environmental impact of used packaging, known as B2C, e-commerce addressed by companies directly to end users.