

2009

Annual Report

ITALIAN TECHNICAL AND ECONOMIC CEMENT ASSOCIATION

ANNUAL ASSOCIATION-MEMBERS MEETING
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RECTORIA

The International Context

The current situation of recession, which struck the world economy during the two-year period 2008-2009, has no equals for its intensity and speed of dissemination.

Starting from the financial crisis initiated by the bursting of the financial bubble tied to sub-prime loans, during August 2007, the world in fact witnessed a rapid propagation of the crisis from the financial world through the real economy, with effects that few could have imagined. The figures are pitiless: during 2009 the GNP shrank by 2.4% in the USA, by 5.2% in Japan and underwent a 4.1% drop in the euro area. On the basis of OECD estimates, during the period between October 2008 and March 2009, the GNPs of the principal industrialized nations contracted on the whole by four percent, the recession violently striking all the more important economies, including the emerging countries'. During that same period the volume of international trade contracted by one-sixth. These facts are obviously exceptional and, in order to find a similar situation, one must go back to the first phase of the Great Depression, when the fall of the GNP appeared without cease. Certainly, the world had not seen so extensive and rapid a depression during the whole period after the second World War.

Unlike what took place during the Great Depression, however, in counterpoint to the unusual violence of the recession was a strong response of political and monetary institutions, which put together unprecedented instruments as regards their size and breadth (the stimulus package for the USA economy alone amounted to more than a billion dollars. trillion?? Many observers brought out the lack of coordination in some areas between the various countries. This is probably true, however the direction taken by the institutions was the correct one and, starting from the third quarter of 2009, the GNP has ceased contracting in most of the principal economies.

Italy too, of course, underwent the effects of the world recession and her GNP rapidly contracted starting from the second quarter of 2008. Between the end of 2008 and the first quarter of 2009 the fall took on all the appearance of a collapse, it being arrested only during the third quarter of 2009 – just before a new dip during the last quarter. ISTAT data bear witness to a 1.3% drop in the GNP in 2008 and to a good 5.0% in 2009, figures that – fortunately – had not been seen for decades. The OECD forecasts for 2010 speak of a GNP that should increase by a little less than one percent. If this forecast proves correct, at the end of 2010 the Italian GNP would be lower than that measured five years before. The *Confindustria* Studies Center has conducted a study based on potential growth rates as computed by OECD, that shows that Italy, should it begin to grow again from 2011 on at rates equivalent to its growth potential as estimated in 2008, will need at least four years to see its GNP back to pre-crisis levels.

As for the international scene, International Monetary Fund estimates for 2010 place the growth of the GNP at 2.7% for the USA, 1.7% for Japan and 1% for the Euro area. That same IMF envisages, for the BRIC countries, an expanding GNP: 10% in China, 7.7% in India and 4.7% in Brazil. During that same period international trade should also climb back up; after having undergone in 2009 a contraction exceeding 12%, it should expand by six percent.

On the raw materials front oil, after the swing in quotations of 2008, has fallen in price, oscillating during 2009 between fifty and eighty dollars a barrel. According to futures quotations for 2010 the price per barrel should undergo a slight increase, settling at 90 dollars a barrel at the end of the year. As for volumes, the world economy's expected recovery, together with forecasts of increases in consumption by the emerging countries, has led economic analysts to upgrade their consumption forecasts for 2010, from the 86.3 million barrels estimated in December 2009 to the 86.6 estimated in March 2010.

(dov'è il rialzo??)



The Italian Economy

On the basis of ISTAT's yearly accounts, Italy's GNP dropped by 5.0% during 2009, continuing the fall that started the previous year in the wake of the recession that struck the world economy.

The heavy decrease in the GNP to a large extent (3.8 percentage points) drew its origin from the dip in domestic demand, on which an important contraction in investment and consumption weighed in particular. Investments decreased by 12.1% (the severest drop since the second world war), while consumption shrank by 1.8% despite the stimuli tied to the plan providing incentives to junk polluting vehicles. The drop in domestic demand found no compensation in foreign demand; during 2009 exports in fact underwent a 19.1% dip. Contributing to this decrease were all sectors of manufacturing, in particular the mechanical, the traditional goods "made in Italy" and the means of transport, with sales dropping in all the principal outlet markets, whether within the European Union countries or outside of them. The effect of the slowdown in the GNP tied to the contraction in exports was partially mitigated by a simultaneous slowdown in import flows, which contracted by 14.5%.

During the acute phase of the international financial crisis (from the second quarter of 2008 to the second of 2009) the volume of Italian goods exports (corrected for inflation and for seasonal effects) contracted by 24.8% against a drop in world demand of 17.7%. The dip in Italy's exports was comparable to that seen in Germany and was more intense than in France (down 25.6% and 18.8% respectively).

Heavily struck by the collapse of international trade was industrial production, which reached a minimum in March 2009, dropping by 25.0% below the previous year. On the whole during 2009 it underwent a collapse of 18.3%. On the basis of the first data of 2010 released by ISTAT the index has displayed a moderate recovery, larger in the non-durable and intermediate consumer goods. On the average during the first two months of 2010 manufacturing activity in fact grew by 1.4% in economic-situational (*cosa significa??*) terms, regaining some seven percentage points above the minimum.

The drop in value-added which affected the nation's economy struck industry (in the strict sense) significantly, it showing a contraction of 15.1%. Within this scene the construction sector displayed a shrinkage in value-added of 6.7%, while private services kept the decrease to 2.6%.

On the whole in 2009 the contraction of consumption (down 1.8%) reflected most especially the behaviour of family disposable income. It is estimated, in fact, that in real terms disposable income dropped by more than two percentage points over 2008, recording its second dip in two years running. Within this context, what negatively influenced families' spending decisions was the deterioration in the overall employment situation together with the drop in financial wealth, which was particularly accentuated during the first months of the year. An exception to the market context was means of transport, which, reaping the benefit of the government incentives plan, succeeded in chalking up a 5.2% growth over the previous year. Completing this picture of demand contraction is to be noted the dynamics of expenditures for consumables abroad by Italian residents, which decreased less than what was shown by expenditures in Italy by non-residents. The effect of this was a contribution of 0.1% to the decrease in the GNP during 2009.

Fixed-assets investments were reduced by 12.1%: 18.4% in machinery and 15.2% in means of transport. Investments in construction dropped by 7.9%, which was a follow-up to the 3.4% dip seen during 2008. However, dwellings prices did not drop as they did in other countries, a signal of the lower overvaluation of real estate in Italy.

The exhaustion of the most acute phase of the world economic crisis left the great economies looking forward to a prospect of growth in the world product, although this growth is expected to make itself manifest in heterogeneous fashion among the principal economic areas and within them. Within the European Union the recovery should have the appearance of "leopard spots", analogously with events during the recession phase. In particular, as regards Italy, expected is a growth of the GNP of around one percent, during 2010. During the coming two-year period 2011-12, and in consideration too of the international recovery and of the consequent locomotive effects, the growth of the GNP should finish at around 1.7%.

The effect of tax facilitations, after having produced marginal effects during the second half of 2009, should bring about an increase in investments in machinery and outfittings during 2010. During the successive two years, instead, and owing to the expected recovery in international trade and the expected increase in export volumes, an increase in investments in machinery of a little below three percent per year is to be expected. Investments in construction, after the drop seen in 2009, are expected to drop further (down 1.2%) during 2010, but should display an average 2.1% growth per year during the next two years.

Private consumption should begin again to grow moderately during 2010, to then increase more substantially (up 1.6% annual average) during the next two years. Bearing on these prospects, however, is the weight of the tensions in the labour market, which could put a brake on the expected dynamics of recovery of private consumption.

On the exports side a recovery is expected that should be motivated by the expected recovery in foreign demand and by the current weakness of the euro. Within this context the contribution of exports to GNP dynamics should be nil during 2010, while it should again be positive during the succeeding two years. The process of reconstitution of inventory by companies, after a two-year period during which there were only decreases, should make a positive contribution to the growth of the GNP during 2010.

As for the labour market, the weakness it displayed during the past year and a half should remain during 2010 as well, although at lower intensity. In particular, forecasts for 2010 in terms of persons employed full time estimate a moderate decrease in employment levels (down 0.4%). Regarding the individual sectors of economic activity, employment should display a positive dynamics in the construction and private services sectors, while it should stay in negative territory in industry in the strict sense. Because of these dynamics, the unemployment rate should stay at 8.7% during 2010, to then drop to 8.2% during 2012.



Investments in construction

The construction market has gone through its longest cycle of expansion since the second World War, with twelve consecutive years of growth up to 2008, when it recorded a reversal of trend. According to ISTAT data a drop was seen in investment of 3.4% in 2008 and a still more sustained drop in 2009: 7.9%. In particular, a decided slowdown was seen in residential construction, which displayed a decrease of 9.3%, while investment in non-residential building construction and public works as a whole showed a 6.6% drop.

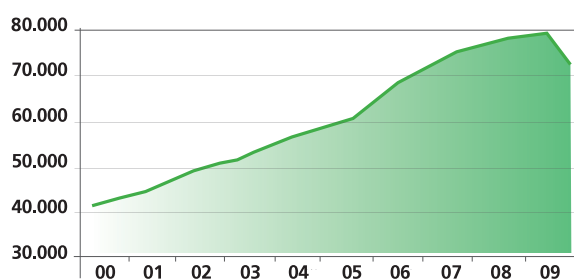
From the standpoint of wealth produced by the construction sector, to be brought out is a strong decrease under the preceding year: the value-added in fact underwent a collapse of 6.7%, which was anyway less intense than that of industry in the strict sense (down 15.1%). The value of production in the construction sector dropped an average of 11.4% during 2009, relative to the 2008 average, with particularly sharp decreases during the first three quarters (down 14.2%, 11.1% and 12.8%) only partly attenuated during the fourth quarter (down 7.5%).

The fourth quarter of 2009 began, in fact, to display an improvement with production in constructions, and transactions in the residential area, displaying lower contractions than for the preceding quarter (down 9% and 3.2%, respectively). Mortgages issued by banks to families showed a progressive increase, which leaves good hope for a possible recovery of real estate sale-purchases during 2010. All this could comfort projecting for 2010 a less pronounced dip, relative to the preceding year, perhaps 1.2% according to the Ministry for the Economy and Finance. This reduction could then be an advance sign of the expected average growth of 2.1% per year during the succeeding two-year period.

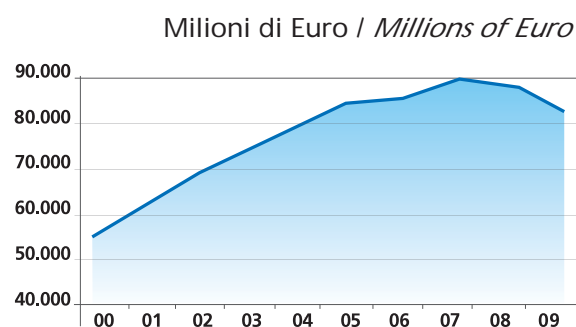
ANCE (National Association of Foreign Trade) too confirms that investments in construction have gone through a particularly difficult year with a more decided drop, however, of around 9.4% under 2008. This drop struck without distinction the three sectors of activity: residential, non-residential and public works – which dipped by 9.5%, 9.2% and 8.1% respectively. In particular, new residential building construction appears to be in heavy difficulty, with a 19.0% drop in investments. During 2010 investments in construction should go on feeling the effects of the economic system's difficulties, although the effects of the economic cycle should begin to attenuate. ANCE had formulated in this regard two distinct scenarios: one regarding only the forecast of a trend with an expected dip of 7.1%, the other including as well the positive effects expected from the so-called "House 2 Plan", which could limit the contraction in investments to 3.9%. This second forecast was recently revised downward to 6.4%, no faith being put any longer in the positive effect for 2010 of a stimulus to investments.

As regards the behaviour of real estate prices, Territory Agency surveys bring out a widespread drop in price quotations, whose dynamics have slowed down during the second half (down 0.2%) relative to what was seen during the first half of 2009 (down 0.5%). This leads to a cautious optimism of market operators, as photographed by the Banca d'Italia-Tecnoborsa surveys made in January 2010, according to which the negative balance between expectations of an increase and those of a drop in house prices has been reduced, while opinions that things remain stationary have increased in number.

INVESTIMENTI NELLE COSTRUZIONI DAL 2000 AL 2009
 INVESTMENTS IN CONSTRUCTIONS FROM 2000 THROUGH 2009



■ abitazioni
 residential buildings



■ fabbricati non residenziali e lavori del genio civile
 non residential buildings and public works

ANDAMENTO DEGLI INVESTIMENTI NELLE COSTRUZIONI
 EVOLUTION OF CONSTRUCTION INVESTMENTS

	Milioni di Euro correnti - aggiustati per i giorni lavorativi Millions of current Euro - working days adjusted data			Variazioni % sull'anno precedente % Change over previous year			
	2007	2008	2009	2008		2009	
				(a)	(b)	(a)	(b)
Costruzioni / Constructions	167.510	167.326	155.666	-3,4	-0,1	-7,9	-7,0
- abitazioni / residential	78.483	78.546	71.681	-3,1	0,1	-9,3	-8,7
- fabbricati non residenziali e opere pubbliche non residential buildings and public works	89.027	88.780	83.985	-3,8	-0,3	-6,6	-5,4

(a) in Euro concatenati; (b) in Euro correnti. / (a) in chained Euro; (b) in current Euro
 Fonte: ISTAT, Conti Nazionali / Source: ISTAT, National Accounts



Cement consumption and production in Europe

The construction sector in Europe unfortunately confirmed and reinforced during 2009 the negative trend in its growth rate. During the year just ended in fact, according to pre-balance-sheet data disseminated by *Euroconstruct*, production underwent an 8.4% contraction compared with 2008. Important contributors to this dip were Spain and Great Britain (down 21.5% and 12.6% respectively) within a picture that anyway sees a generalized drop in every one of the *Euroconstruct* countries, with the sole exceptions of Switzerland (up 3.3%) and Poland (up 5.3%).

Cement demand in Europe therefore felt the effects of the dynamics of contraction in the construction sector. This translated into a decrease in the EU-27 area of 23.5%, according to data put out by *Cembureau*, the equivalent of 188 million tons. The drop amounted to 20.2% if only the *Cembureau* countries are considered.

The aggravation of the economic crisis, which starting from the second half of 2007 affected the world economy, during 2009 sharpened the contraction of per-capita cement consumption in Europe. The crisis in the real estate market that is bringing the Spanish economy down, in fact, gave rise in 2009 to a drop in per-capita cement consumption in Spain exceeding 33%, which is in addition to the 26.2% drop already seen in 2008. At the continental (?? *UK sono isole; forse "Europe wide"?*) level, however, the general picture is not comforting either, with the United Kingdom losing 24.1% of its per-capita consumption, France undergoing a 16.0% contraction and Poland a 10.5%. Appearing significant then, within this picture, even if the values are moderate, is the contraction in Ireland's per-capita consumption, which was halved (down 48.6%) relative to the previous year. The only exception in this parade of contractions is Switzerland, which maintained its per-capita consumption unvaried. As for Italy, per-capita cement consumption underwent during 2009 a 16.4% contraction, with consumption therefore ending up at 601 kg per inhabitant.

Under the thrust of these negative consumption trends at the level of individual countries, per-capita consumption seen in the EU area shows a decrease to 391 kg in 2009 as against the 487 kg in 2008.

In light of the heavy slowdown in the world economy in general, and the European in particular, cement production in the Europe of the 27 underwent in 2009 a 20.3% collapse relative to 2008, ending up at a total value of 203 million tons. Analysis for just the *Cembureau* countries brings out a decrease of 15.4% of the volumes produced, with an overall production level of 262 million tons.

In the individual countries, whether for production or for consumption, the strong "two-figures" drop throughout all of Europe is confirmed. In particular, Spain underwent a 28.9% decrease, the United Kingdom a 24.1%, Austria 16.0%, and France 14.7%. Germany succeeded in keeping the decrease to 9.4%, while Switzerland is the sole exception, its production remaining unvaried over 2008 (up 0.4%). In the extra-EU area the only country significantly able to keep up a positive sign, it increasing its production volumes despite the drop in consumption, was Turkey (up 7.8%), whose production exceeded 57 million tons.



PRODUZIONE DI CEMENTO IN EUROPA
CEMENT PRODUCTION IN EUROPE

000 t / 000 tonnes

	Produzione / Production		Variazioni % / Change %
	2009	2008	2009 / 2008
Spagna / Spain	30.632	43.074	-28,9%
Italia / Italy	36.317	43.030	-15,6%
Germania / Germany	30.441	33.581	-9,4%
Francia / France	18.300	21.443	-14,7%
Regno Unito / UK	8.018	10.562	-24,1%
Belgio, NL, L / Belgium, NL, L	9.928	11.674	-15,0%
Austria / Austria	4.665	5.554	-16,0%
Altri UE / Others EU	64.227	85.295	-24,7%
Totale Paesi UE 27 / Total EU countries 27	202.527	254.212	-20,3%
Turchia / Turkey	57.567	53.380	7,8%
Svizzera / Switzerland	4.303	4.284	0,4%
Altri / Others	4.580	5.725	-20,0%
Totale Paesi / Total Countries	268.978	317.601	-15,3%

Fonte: Cembureau ed elaborazioni AITEC / Source: Cembureau and AITEC workups

RIPARTIZIONE GEOGRAFICA DELLA PRODUZIONE EUROPEA DAL 2002 FINO AL 2009
GEOGRAPHIC DISTRIBUTION OF EUROPEAN PRODUCTION FROM 2002 THROUGH 2009

000 t / 000 tonnes

	2002	2003	2004	2005	2006	2007	2008	2009
Paesi UE 27 EU Countries 27	226.598	233.621	243.005	249.869	266.122	271.670	254.212	202.527
di cui Italia of which Italy	41.417	43.462	46.053	46.411	47.875	47.542	43.030	36.317
Altri Paesi Cembureau Other Cembureau countries	46.204	47.259	50.258	55.134	58.708	60.831	63.389	66.450
Totale Paesi / Total Countries	272.802	280.880	293.263	305.003	324.830	332.501	317.601	268.977

Fonte: Cembureau / Source: Cembureau



CONSUMI DI CEMENTO PRO-CAPITE IN EUROPA
 PER CAPITA CEMENT CONSUMPTIONS IN EUROPE

	2009	2008	Variazioni % / Change % 2009 / 2008
			kg
Lussemburgo / <i>Luxembourg</i>	1.005	1.228	-18,2
Spagna / <i>Spain</i>	625	936	-33,2
Irlanda / <i>Ireland</i>	413	803	-48,6
Grecia / <i>Greece</i>	c	913	n.d. / n.a.
Italia / <i>Italy</i>	601	719	-16,4
Portogallo / <i>Portugal</i>	580	689	-15,8
Austria / <i>Austria</i>	600	709	-15,4
Svizzera / <i>Switzerland</i>	601	601	0,0
Turchia / <i>Turkey</i>	551	567	-2,9
Belgio / <i>Belgium</i>	530	583	-9,1
Norvegia / <i>Norway</i>	332	418	-20,5
Francia / <i>France</i>	325	386	-16,0
Finlandia / <i>Finland</i>	252	359	-29,7
Danimarca / <i>Denmark</i>	c	339	n.d. / n.a.
Paesi Bassi / <i>The Netherlands</i>	321	384	-16,4
Germania / <i>Germany</i>	310	337	-7,8
Svezia / <i>Sweden</i>	208	271	-23,1
Regno Unito / <i>UK</i>	154	202	-24,1
Totale Paesi / <i>Total countries (*)</i>	391	487	-19,7

Fonte: Cembureau / *Source: Cembureau*

c = dato riservato / *confidential data*

(*) Il dato non include i consumi di Grecia e Danimarca in quanto riservati

/ *Data do not include Greece and Denmark consumptions which are confidential*



Cement production and consumption in Italy

The world economic crisis made its effects felt on Italy's cement production volume. After the dip of 2008 (down 9.8%), in fact, 2009 too displayed a significant contraction: down 15.6%, with a production volume of 36.3 million tons.

The general falling-production context in Europe generated a remixing of positions among the main producers that, with the heavy Spanish crisis as accomplice, places Italy in the position of primary cement producer in the EU area, after having historically occupied second place in the ranking.

The heavy economic recession into which the country has fallen, starting from 2008, exerted a sharp effect on production levels during 2009.

Production behaviour, in fact, even as early as the last quarter of 2008, displayed a clear discontinuity. This gave rise to significant decreases on a monthly basis that continued to be seen during the first three quarters of 2009, to slow down only during the last months of the year, while always keeping a negative sign. During the starting months of 2009 in particular, decreases as high as 30% were reached, sharpened too by the unfavourable meteorology.

On analyzing the distribution of production by geographic area the 2008 trend is confirmed, which saw a generalized drop in production over the nation's entire territory, with decreases running between -12.6% in Central Italy and -21.7% in the islands. The only region to display a positive change in production (up 7.7%) was Liguria, but on volumes of little significance. Standing out, on the other hand, were the decreases in Puglia (down 26.4%), Emilia Romagna (down 25.9%), Piedmont (down 22.5%) and Sicily (down 23.5%).

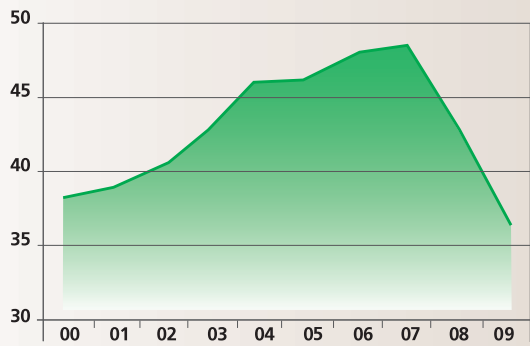
As with production, cement consumption too displayed a strong contraction, a decrease of 13.7% being seen relative to 2008. It is important to bring out how cement demand recorded a phase of discontinuity in November 2008, which gave rise to a depression in consumption that was protracted throughout the whole of 2009, abating cement consumption to a level of 36.1 million tons.

Side by side with the low level of home cement consumption seen in 2009, clinker production too contracted, reaching the level of 25.3 million tons (down 18.8% over 2008).

Going ahead then, during 2009 as well, was the trend to a decrease in the ratio of clinker consumption to cement production, whose value ended at 75%. This behaviour is further confirmation of the effort put forth by the cement production firms to produce cement types that, for equivalent yields, demand lower use of clinker, enabling significant progress towards compliance with the burdensome commitments to reduce CO₂ emissions, assigned the cement sector.

PRODUZIONE DI CEMENTO DAL 2000 AL 2009
 CEMENT PRODUCTION FROM 2000 THROUGH 2009

Milioni di tonnellate / Millions of tonnes



PRODUZIONE MENSILE DI CEMENTO DAL 2008 AL 2009
 MONTHLY CEMENT PRODUCTION FROM 2008 THROUGH 2009

Milioni di tonnellate / Millions of tonnes



■ anno 2008 / year 2008



■ anno 2009 / year 2009



During 2009 the production of hydraulic binders for constructions (LIC) amounted to 700 thousand tons, a further dip under the previous year.

Expectations for 2010, although improved over 2009, continue to show a drop in home consumption. The general macroeconomic context envisages, in fact, a further dip in investments in construction, which will produce its effects on cement demand. After the discontinuity seen at the end of 2008, it is expected that, from 2011 on, consumption can gradually begin to grow again as the years pass. In the dynamics that such a recovery can take on, a vital role will be played by public stimuli, if there are any.

PRODUZIONE DI CEMENTO 2009 E 2008 PER REGIONI E PER GRANDI AREE TERRITORIALI
CEMENT PRODUCTION IN 2009 AND 2008 BY REGION AND BY LARGE TERRITORIAL AREAS

t / tonnes

	2009	2008	Variazioni % / change % 2009 / 2008
Piemonte	2.621.670	3.382.892	-22,5
Liguria	210.038	195.062	7,7
Lombardia	5.694.471	6.209.096	-8,3
Veneto	3.868.682	4.625.194	-16,4
Friuli-Venezia Giulia	1.140.543	1.361.004	-16,2
Trentino-Alto Adige	363.075	432.025	-16,0
Emilia-Romagna	2.880.409	3.889.731	-25,9
<i>Settentrione / North</i>	<i>16.778.888</i>	<i>20.095.004</i>	<i>-16,5</i>
Toscana	1.929.103	2.268.684	-15,0
Marche	385.564	431.339	-10,6
Umbria	2.382.157	2.711.204	-12,1
Lazio	2.409.755	2.719.125	-11,4
<i>Centro / Centre</i>	<i>7.106.579</i>	<i>8.130.352</i>	<i>-12,6</i>
Abruzzo	990.811	1.136.686	-12,8
Molise	869.976	1.018.381	-14,6
Campania	1.827.272	2.104.711	-13,2
Puglia	2.391.109	3.250.048	-26,4
Calabria	1.335.696	1.449.021	-7,8
Basilicata	1.306.249	1.105.753	18,1
<i>Meridione / South</i>	<i>8.721.113</i>	<i>10.064.600</i>	<i>-13,3</i>
Sardegna	1.013.294	1.214.954	-16,6
Sicilia	2.697.416	3.525.011	-23,5
<i>Isole / Islands</i>	<i>3.710.710</i>	<i>4.739.965</i>	<i>-21,7</i>
<i>Totale / Total</i>	<i>36.317.290</i>	<i>43.029.921</i>	<i>-15,6</i>

Fonte: Elaborazioni AITEC su dati Ministero Sviluppo Economico e ISTAT
 AITEC Processing of Ministry for Economical Development and ISTAT data

GIACENZE, CONSUMI E CONSEGNE INTERNE
 DOMESTIC STOCKS, CONSUMPTIONS AND DELIVERIES

t / tonnes

	Giacenze / Stocks		Variazioni % Change % 2009 / 2008		Consumi interni Domestic consumptions	Variazioni % Change % 2009 / 2008	Consegne interne Domestic deliveries	Variazioni % Change % 2009 / 2008
	cemento cement	clinker clinker	cemento cement	clinker clinker				
2009	1.354.331	2.687.809			36.085.816		34.343.775	
			1,8	-22,3		-13,7		-15,3
2008	1.331.018	3.458.970			41.813.708		40.554.974	

PRODUZIONE MENSILE / MONTHLY PRODUCTION

t / tonnes

	2009	2008	Variazioni % / Change % 2009 / 2008
Gennaio / January	2.073.707	2.954.302	-29,8
Febbraio / February	2.674.924	3.802.125	-29,6
Marzo / March	3.398.697	3.894.302	-12,7
Aprile / April	3.050.321	3.930.523	-22,4
Maggio / May	3.597.787	4.126.485	-12,8
Giugno / June	3.432.347	3.967.000	-13,5
Luglio / July	3.775.256	4.284.028	-11,9
Agosto / August	2.194.072	2.478.919	-11,5
Settembre / September	3.233.181	3.733.359	-13,4
Ottobre / October	3.571.780	4.217.176	-15,3
Novembre / November	3.168.909	3.450.650	-8,2
Dicembre / December	2.146.309	2.191.051	-2,0
Totale / Total	36.317.290	43.029.921	-15,6



PRODUZIONE DI CEMENTO PER ABITANTE (*)
CEMENT PRODUCTION PER INHABITANT (*)

	2009	2008	Variazioni % / Change % 2009 / 2008
Settentrione / North	613	737	-16,9
Centro / Centre	602	693	-13,0
Meridione / South	616	712	-13,4
Isole / Islands	553	707	-21,8
Media / Average	605	719	-15,9

kg

(*) Rapporto produzione-popolazione / Production-resident population ratio

The nation's cement imports and exports

Analysis of the final balances on trade with abroad confirms Italy as a net importer, there being a worsening, relative to 2008, of the import-export deficit (-0.5 million tons), equivalent to a 64.1% worsening of the negative balance on the volumes exchanged.

Cement trade with abroad displayed a net worsening of the balances (-83.7%) owing to the effect of the decrease in export volumes, while there was an increase in the volumes imported. As for clinker, the strong imbalance in the flows abroad remained, with almost nil exports (five thousand tons) and heavy imports (1.5 million tons), even if they dipped somewhat. It was just the drop in imports (down 0.6 million tons) that lay at the base of the improvement in the balance of volumes exchanged (up 27.6%). The biggest exporter of clinker to Italy during 2009 was Turkey, which, with a volume exceeding 1.1 million tons, decidedly surpassed the other countries, achieving a market quota of 74.7%. China, which in 2008 was the second exporter country with 604 thousand tons and a quota of 28.8%, reduced its volumes to only a little more than 60 thousand tons, while Austria maintained its position, though the volumes involved were reduced.

During 2009 cement exports contracted to 1.95 million tons, displaying a decrease under the preceding year in their incidence on the nation's production volume (5.4%). Territorial analysis brings out the heavy decreases in the Islands (down 39.7%) and in the South (down 16.2%), a dip in the North (down 6.8%), with the Center remaining substantially stable (down 0.3%), even though the volumes were of slight significance compared with the other territorial figures.

Italian cement's principal foreign market was still the countries of the Mediterranean basin, with Spain, its construction sector in crisis, losing in to Malta first position among the addressees of Italian cement exports. This small Mediterranean island in fact absorbs 21.6% of Italy's exports, while Spain receives 15.9% of our export flows. The other principal markets for Italy's cement are France, Albania, Slovenia and Switzerland, which together with Malta and Spain, absorb 87% of Italy's export flows.

In 2009 overall cement and clinker imports recorded a further dip under that seen in 2008, with volumes ending up at 3.2 million tons, a 3.5% drop below 2008. The existence of important port infrastructures, able to dock merchantmen of considerable tonnage, is confirmed as a determining factor in attracting cement import flows. In 2009 too, in fact, just as in the past, they were concentrated in the regions of Sicily, Puglia, Veneto and Liguria, which receive 62% of Italy's import flows.

In 2009 as well the principal countries from which Italy imported cement were those of the Mediterranean area, but with a substantial concentration, compared with 2008, in a more restricted core of countries. Turkey and France in particular cover more than 74% of Italy's imports, while if the analysis is extended to Greece and Croatia the volume of imports covered exceeds 85%. Among these countries Turkey alone covers almost 66% of total Italian import flows, an item of considerable relevance when put in relation to her weight (19.4%) in 2008, and which is coupled with the strong increase already remarked in clinker export volumes. On the other hand, practically nullified were imports from Tunisia, which in 2008 covered 6.5% of Italy's clinker imports.

Regarding clinker imports, as noted three-quarters of Italy's import flows come from Turkey, while China has cut its exports to Italy by 90%. The other countries have sensibly reduced their export flows, among them Croatia decreased its volumes by more than 80%, Thailand by 68% and France by 64%, all to Turkey's advantage. This analysis thus shows that in 2009 there was a high clinker supply in the Mediterranean basin area.

During 2009 too, while being confirmed as the world's principal exporter with 15.6 million tons, China sharply reduced the volume of its exports (down 40%). Thailand decreased its exports by only 7.6%, while Turkey's exports grew by 40.6% to 17.6 million tons and Taiwan's grew (up 6.7%) to 8.2 million tons.



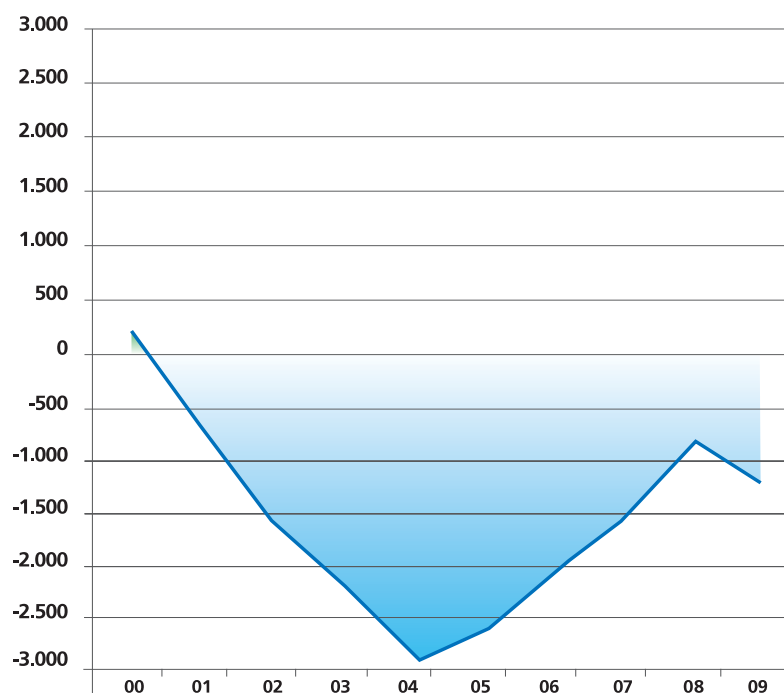
ESPORTAZIONI E IMPORTAZIONI DI CEMENTO E CLINKER
 CEMENT AND CLINKER EXPORTS AND IMPORTS RELATIVE TO ITALY

000 t / 000 tonnes

	Esportazioni / Exports				Importazioni / Imports			
	cemento <i>cement</i>	clinker <i>clinker</i>	Totale <i>Total</i>	% di produzione esportata <i>% of production exported</i>	cemento <i>cement</i>	clinker <i>clinker</i>	Totale <i>Total</i>	% della produzione % of production
1999	2.480	92	2.572	6,9	1.457	220	1.677	4,5
2000	2.466	95	2.561	6,6	1.793	547	2.340	6,0
2001	2.477	100	2.577	6,5	2.219	1.001	3.220	8,1
2002	2.274	83	2.357	5,7	2.101	1.777	3.878	9,4
2003	2.178	55	2.233	5,1	2.202	2.323	4.525	10,4
2004	1.999	7	2.006	4,6	2.276	2.720	4.996	10,8
2005	2.426	7	2.433	5,2	2.167	2.829	4.996	10,8
2006	2.637	61	2.698	5,6	1.749	2.872	4.621	9,7
2007	2.640	143	2.783	5,9	1.449	2.827	4.276	9,0
2008	2.536	38	2.574	6,0	1.259	2.096	3.355	7,8
2009	1.950	5	1.955	5,4	1.742	1.495	3.237	8,9

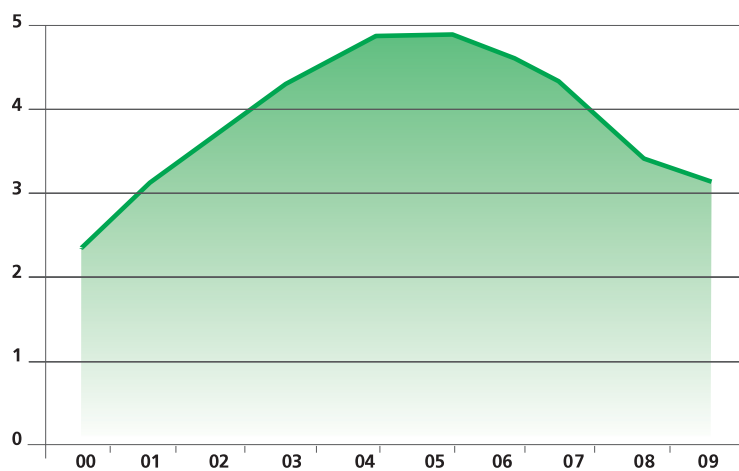
ANDAMENTO DEL SALDO COMMERCIALE CON L'ESTERO DI CEMENTO E CLINKER DAL 2000 AL 2009
 EXTERNAL TRADE PERFORMANCE FOR CEMENT AND CLINKER FROM 2000 THROUGH 2009

Migliaia di tonnellate / Thousands of tonnes



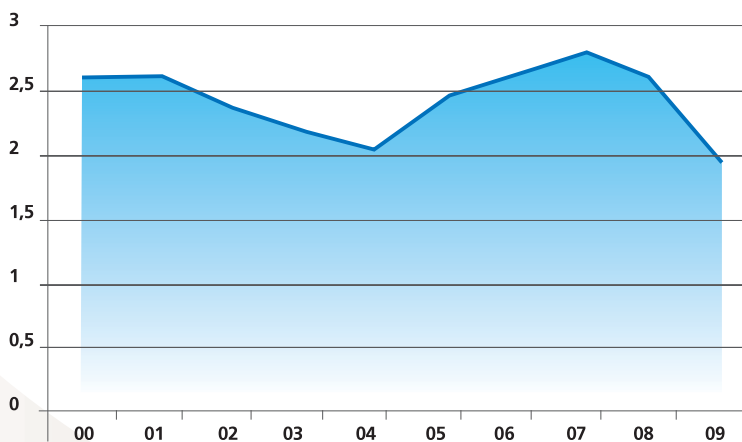
ANDAMENTO DELLE IMPORTAZIONI NAZIONALI DI CEMENTO E CLINKER DAL 2000 AL 2009
NATIONAL CEMENT AND CLINKER IMPORTS FROM 2000 THROUGH 2009

Milioni di tonnellate / *Millions of tonnes*



ANDAMENTO DELLE ESPORTAZIONI NAZIONALI DI CEMENTO E CLINKER DAL 2000 AL 2009
NATIONAL CEMENT AND CLINKER EXPORTS FROM 2000 THROUGH 2009

Milioni di tonnellate / *Millions of tonnes*





IMPORTAZIONI DI CEMENTO PER REGIONI NEL 2009
CEMENT IMPORT IN 2009 BY REGION

t / tonnes

	Importazioni / Imports	Produzione / Production	% della produzione % of production
Piemonte	121.855	2.621.670	4,6
Liguria	283.834	210.038	135,1
Lombardia	75.885	5.694.471	1,3
Veneto	387.048	3.868.682	10,0
Friuli-Venezia Giulia	149.611	1.140.543	13,1
Trentino-Alto Adige	45.854	363.075	12,6
Emilia-Romagna	30.246	2.880.409	1,1
<i>Settentrione / North</i>	<i>1.094.332</i>	<i>16.778.888</i>	<i>6,5</i>
Toscana	33.072	1.929.103	1,7
Marche	9.901	385.564	2,6
Umbria	4.107	2.382.157	0,2
Lazio	97.249	2.409.755	4,0
<i>Centro / Centre</i>	<i>144.331</i>	<i>7.106.579</i>	<i>2,0</i>
Abruzzo	53.276	990.811	5,4
Molise	0	869.976	0,0
Campania	22.870	1.827.272	1,3
Puglia	156.004	2.391.109	6,5
Calabria	5.774	1.335.696	0,4
Basilicata	0	1.306.249	0,0
<i>Meridione / South</i>	<i>237.925</i>	<i>8.721.113</i>	<i>2,7</i>
Sardegna	11.719	1.013.294	1,2
Sicilia	253.735	2.697.416	9,4
<i>Isole / Islands</i>	<i>265.454</i>	<i>3.710.710</i>	<i>7,2</i>
<i>Totale / Total</i>	<i>1.742.041</i>	<i>36.317.290</i>	<i>4,8</i>

ESPORTAZIONI DI CEMENTO E CLINKER DI ALCUNI PAESI DELL'EUROPA OCCIDENTALE
CEMENT AND CLINKER EXPORTS FROM WESTERN EUROPEAN COUNTRIES

000 t / 000 tonnes

	2009	% della produzione % of production	2008	% della produzione % of production	Variazioni % Change % 2009 / 2008
Turchia / <i>Turkey</i>	17.622	30,6	12.533	23,5	40,6
Germania / <i>Germany</i>	7.015	23,0	8.919	26,6	-21,3
Grecia / <i>Greece</i>	4.201	n.d. / n.a. (*)	4.557	30,9	n.d. / n.a. (*)
Belgio, NL, L / <i>Belgium, NL, L</i>	3.296	33,2	4.294	36,8	-23,3
Italia / <i>Italy</i>	1.955	5,4	2.574	6,0	-24,0
Spagna / <i>Spain</i>	2.844	9,3	2.335	5,4	21,8
Francia / <i>France</i>	1.075	5,9	1.177	5,5	-8,7
Regno Unito / <i>UK</i>	257	3,3	339	3,2	-24,1
Austria / <i>Austria</i>	470	10,1	677	12,2	-30,6

Fonte: Cembureau ed Eurostat / *Source: Cembureau and Eurostat*
 (*) dato sulla produzione riservato / *confidential production data*

MAGGIORI ESPORTATORI MONDIALI DI CEMENTO E CLINKER
MAJOR WORLD CEMENT CLINKER EXPORTERS

 Milioni di t / *Millions of tonnes*

	2009	2008
Cina / <i>China</i>	15,6	26,0
Thailandia / <i>Thailand</i>	14,4	15,6
Giappone / <i>Japan</i>	10,7	10,9
Germania / <i>Germany</i>	7,0	8,9
Turchia / <i>Turkey</i>	17,6	12,5
Indonesia / <i>Indonesia</i>	4,0	4,9
Taiwan / <i>Taiwan</i>	8,2	7,7
India / <i>India</i>	5,7	5,7
Corea / <i>Korea</i>	4,6	6,5
Canada / <i>Canada</i>	3,4	4,2
Grecia / <i>Greece</i>	4,2	4,6
Malesia / <i>Malaysia</i>	4,4	3,9
Italia / <i>Italy</i>	2,0	2,5
Filippine / <i>Philippines</i>	0,6	1,6
Francia / <i>France</i>	1,1	1,2
Spagna / <i>Spain</i>	2,8	2,3

Fonte: Cembureau ed Eurostat / *Source: Cembureau and Eurostat*



Production breakdown by technical characteristics and composition

Analysis of the breakdown of cement production by typology confirms, in 2009 as well, the balances between the various cement typologies, which appear to have been consolidated for years by now.

Portland (CEM II) in particular is confirmed as the cement most produced in Italy, its share being 73% of total national production. Within this category the larger part of production (66%) is Portland limestone composite.

Pozzolana cement (CEM IV) is confirmed as the second-ranking category of cement most produced in Italy, its share of the nation's production having increased over 2008 to 13.3%. Portland (CEM I) has maintained its values practically at those of 2008, ending up at 7.9% of Italy's production. Stable relative to 2008 too are both slag cement (CEM III), at 4.3%, and composite cement (CEM V) at 1.4%.

Analysis of cement production breakdown by strength classes brings out that, during 2009, the high- and very-high-strength cements (classes 42.5 and 52.5) surpassed the other cement typologies (class 32.5), their weight on the nation's production being 52.3%. On analyzing uses at the territorial level, in the North the use of class 32.5 cements still prevails, even if dipping relative to 2008, while in the rest of the nation's territory the preference is by now evidently for the high-performance cements, owing to the excellent results offered in mechanical terms and in speed of construction.



ANDAMENTO DELLA RIPARTIZIONE PER TIPI DAL 1999 AL 2009
 DISTRIBUTION BY TYPE FROM 1999 THROUGH 2009

	%				
	CEM I	CEM II	CEM III	CEM IV	CEM V
1999	10,08	72,83	3,06	13,52	0,51
2000	9,61	74,41	2,67	12,42	0,89
2001	8,93	76,01	2,87	11,44	0,75
2002	8,98	76,83	3,11	10,45	0,63
2003	8,51	76,98	3,26	10,58	0,67
2004	8,54	76,95	3,49	10,17	0,85
2005	7,03	76,75	3,42	12,18	0,62
2006	6,53	75,50	5,32	11,83	0,82
2007	6,91	76,11	4,28	11,72	0,98
2008	7,81	74,99	4,62	11,50	1,08
2009	7,89	73,10	4,31	13,33	1,37

2009 RIPARTIZIONE PER TIPI DI CEMENTO
 2009 DISTRIBUTION BY CEMENT TYPE

tipo / type	t / tonnes	%
I	2.866.606	7,89
II/A-S	378.693	1,04
II/B-S	517.490	1,42
II/A-P	80.568	0,22
II/B-P	244.713	0,67
II/A-L; II/A-LL	16.908.326	46,56
II/B-L; II/B-LL	7.020.885	19,33
II/A-M	80.420	0,22
II/B-M	1.313.480	3,62
III/A	1.559.312	4,29
III/B	4.938	0,01
IV/A	2.064.399	5,68
IV/B	2.778.955	7,65
V/A	498.505	1,37
Totale / Total	36.317.290	100,00



2009 RIPARTIZIONE PER GRANDI CLASSI NELLE AREE GEOGRAFICHE
 2009 DISTRIBUTION BY BROAD CLASSES

	32,5 32.5		42,5 e 52,5 42.5 and 52.5	
	t / tonnes	%	t / tonnes	%
Settentrione / North	9.469.993	56,4	7.308.895	43,6
Centro / Centre	2.894.090	40,7	4.212.489	59,3
Meridione / South	3.681.950	42,2	5.039.163	57,8
Isole / Islands	1.764.308	47,5	1.946.402	52,5
Totale / Total	17.810.341	49,0	18.506.949	51,0

DISTRIBUZIONE DELLA PRODUZIONE DI CEMENTO PER CLASSI DI RESISTENZA
 DISTRIBUTION OF CEMENT PRODUCTION BY STRENGTH CLASSES

	%										
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
32,5 / 32.5	59,1	58,2	55,3	53,9	52,8	52,4	52,0	51,0	51,3	47,7	
42,5 e 52,5 / 42.5 and 52.5	40,9	41,8	44,7	46,1	47,2	47,6	48,0	49,0	48,7	52,3	

Where cement goes

Analysis of the destinations of cement produced in Italy in 2009 (intermediate destinations) brings out no significant differences over the preceding year, except perhaps in the volumes moved. Still once again the most important of the various product destinations was premixed concrete, which took up, through concrete-mixing plants, 48.5% of the nation's production (17.6 million tons)

The resale channel, after the dip seen in 2008, displays a recovery, with volumes taking up 23.7% of the nation's production: 8.6 million tons.

The dynamics emerging from the flows to intermediate destinations shows a falling back in the pre-casting channel and in that of the construction companies, to the advantage of the resale channel. Certainly not extraneous to this dynamics is the crisis that struck the country, which is gradually reducing the volume of orders in cement company portfolios.

Cement distribution channels anyway represent, in most cases, an intermediate destination between the cement manufacturer and the construction world.

To fill this information gap AITEC has carried on for some years now a statistical analysis on cement end destinations by sector. A brief summary of the results is:

- Residential building construction: 36.1%
- Public works: 33.5%
- Instrumental building construction: 30.4%.

For more details on cement end destinations, see *Cement and construction*, AITEC Study 2005.





2009 DESTINAZIONI INTERMEDIE DEL CEMENTO
2009 CEMENT INTERMEDIATE DESTINATIONS

	t / tonnes	%
Centrali di betonaggio / <i>Ready-mixed</i>	17.611.472	48,5
Rivenditori / <i>Retail sales</i>	8.620.798	23,7
Prefabbricatori / <i>Pre-cast</i>	4.163.534	11,5
Imprese di costruzione / <i>Construction firms</i>	2.213.745	6,1
Esportazione / <i>Export</i>	1.950.202	5,4
Premiscelatori / <i>Premixing</i>	1.499.490	4,1
Altre destinazioni / <i>Other destinations</i>	258.050	0,7

ANDAMENTO DELLE DESTINAZIONI INTERMEDIE DEL CEMENTO DAL 2000 AL 2009
BEHAVIOUR OF INTERMEDIATE CEMENT DESTINATIONS FROM 2000 THROUGH 2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Centrali di betonaggio <i>Ready-mixed</i>	46,0	44,5	47,0	48,7	48,8	48,6	48,3	48,5	48,5	48,5
Rivenditori <i>Retail sales</i>	24,5	23,0	21,4	20,3	22,8	23,2	23,0	21,6	21,4	23,7
Prefabbricatori <i>Pre-cast</i>	13,2	12,6	13,1	12,5	11,9	11,2	11,0	11,0	12,2	11,5
Imprese di costruzione <i>Construction firms</i>	7,3	9,5	8,7	8,8	7,1	7,0	7,3	8,1	6,9	6,1
Esportazione <i>Export</i>	6,3	6,2	5,5	5,0	4,5	5,2	5,6	5,6	5,9	5,4
Premiscelatori <i>Premixing</i>	n.d./n.a.	3,2	3,1	3,9	3,9	3,7	3,7	4,1	4,4	4,1
Altre destinazioni <i>Other destinations</i>	2,7	1,0	1,2	0,8	1,0	1,1	1,1	1,1	0,7	0,7

The cement sector's structure

The economic crisis, which brought with it a 15.6% fall-back in production volumes during 2009, did not greatly upset the production trim of Italy's cement industry. During 2009 in fact only two plants were closed.

The distribution by production class brings out an adjustment of production levels, which during 2009 were concentrated principally in medium-size plants, while the large-capacity plants had to accept a decrease in their share of total production volumes. In any event the principal characteristics of the production structures were maintained, these being:

- the capillary distribution of production plants over the whole of the nation's territory;
- a large number of active plants;
- a very high plant technological level.

RIPARTIZIONE DELLA PRODUZIONE TRA LE MAGGIORI AZIENDE NEL 2009 PRODUCTION PERCENTAGE OF THE MAJOR COMPANIES IN 2009

		%
Italcementi	(1 azienda e 25 unità / 1 company and 25 plants)	25,7%
Buzzi Unicem	(1 azienda e 13 unità / 1 company and 13 plants)	16,4%
Colacem	(1 azienda e 8 unità / 1 company and 8 plants)	13,7%
Cementir	(1 azienda e 4 unità / 1 company and 4 plants)	7,1%
Sacci	(2 aziende e 6 unità / 2 companies and 6 plants)	6,0%
Cementi Rossi	(1 azienda e 4 unità / 1 company and 4 plants)	5,4%
Holcim	(1 azienda e 3 unità / 1 company and 3 plants)	5,4%
Cementizillo	(1 azienda e 2 unità / 1 company and 2 plants)	2,5%
Cal.me	(1 azienda e 3 unità / 1 company and 3 plants)	2,4%
Monselice	(1 azienda e 1 unità / 1 company and 1 plant)	1,9%
Cementi Moccia	(1 azienda e 1 unità / 1 company and 1 plant)	1,2%
Cementi della Lucania	(1 azienda e 1 unità / 1 company and 1 plant)	0,5%
Altre aziende / Other companies	(15 aziende e 17 unità / 15 companies and 17 plants)	11,8%
Totale / Total	(28 aziende e 88 unità / 28 companies and 88 plants)	100,0%



The plants operating in Italy's cement sector numbered 29, the two plants lost during 2008 thus having been recovered. This large number bears witness, still once again, to Italy's particular nature compared with other European contexts, where there are fewer plants owing to mergers and acquisitions of existing cement companies.

It is furthermore to be observed that what characterizes the Italian context is not only the large number of companies in the cement sector, but also their heterogeneity, whether in dimensions or at the territorial level.

As for the plants' locations on the nation's territory, 45% of them are sited in the North, 17% in the Center, and 38% in the South and Islands, thus ensuring a constant presence of plants at short distances from the product's places of consumption.

RIPARTIZIONE DELLE CEMENTERIE PER CLASSI PRODUTTIVE NEL 2009
CEMENT PLANTS DISTRIBUTION BY PRODUCTION OUTPUT IN 2009

	n.	t / tonnes	%
Fino a 100.000 tonn. / Up to 100,000 tons	12	689.851	1,9%
da 100.001 a 300.000 tonn. / from 100,001 to 300,000 tons	27	5.240.310	14,4%
da 300.001 a 600.000 tonn. / from 300,001 to 600,000 tons	26	11.255.676	31,0%
da 600.001 a 1.000.000 tonn. / from 600,001 to 1,000,000 tons	20	15.583.509	42,9%
oltre 1.000.000 di tonn. / over 1,000,000 tons	3	3.547.944	9,8%
Totale / Total	88	36.317.290	100,0%

FORNI DI COTTURA
SINTERING KILNS

	2009	2008
Forni attivi / Active kilns	80	80
RS Rotanti a via secca e semisecca / RS-Rotary, dry and semidry type	80	80
RH Rotanti a via umida / RH-Rotary, wet type	0	0

The kilns working in Italy number 80, as in 2008, and are all based on the dry or semi-dry technology, which means greater energy efficiency.

As mentioned, the share of cement produced in large-dimension plants (having production capacities exceeding a million tons per year) contracted during 2009, dropping below 10% of the nation's production. This owed to the downsizing of a good six plants, which went below the million-ton production level.

DISTRIBUZIONE TERRITORIALE DELLE UNITÀ PRODUTTIVE NEL 2009
TERRITORIAL DISTRIBUTION OF PLANTS IN 2009

	Ciclo completo <i>Full cycle</i>	Sola macinazione <i>Grinding only</i>	Totale <i>Total</i>
Piemonte	3	6	9
Liguria	0	1	1
Lombardia	7	0	7
Veneto	6	3	9
Friuli-Venezia Giulia	3	1	4
Trentino-Alto Adige	2	1	3
Emilia-Romagna	2	5	7
<i>Settentrione / North</i>	<i>23</i>	<i>17</i>	<i>40</i>
Toscana	4	2	6
Marche	1	0	1
Umbria	3	0	3
Lazio	2	3	5
<i>Centro / Centre</i>	<i>10</i>	<i>5</i>	<i>15</i>
Abruzzo	3	0	3
Molise	2	0	2
Campania	4	1	5
Puglia	3	2	5
Calabria	3	1	4
Basilicata	3	0	3
<i>Meridione / South</i>	<i>18</i>	<i>4</i>	<i>22</i>
Sardegna	2	2	4
Sicilia	5	2	7
<i>Isole / Islands</i>	<i>7</i>	<i>4</i>	<i>11</i>
<i>Totale / Total</i>	<i>58</i>	<i>30</i>	<i>88</i>



AZIENDE E UNITÀ PRODUTTIVE
COMPANIES AND PLANTS

	2009	2008
Aziende / <i>Companies</i>	29	27
Unità produttive / <i>Plants</i> di cui a ciclo completo <i>of which, full-cycle</i>	88	90
di cui officine di macinazione <i>of which, grinding plants</i>	58	60
	30	30

RIPARTIZIONE DELLA PRODUZIONE PER CLASSI AZIENDALI
PRODUCTION BY CLASSES OF COMPANIES

	n.	%
Inferiori a 500.000 tonn. <i>Less than 500,000 tonnes</i>	16	5,6
Da 500.000 a 3.000.000 tonn. <i>From 500,000 to 3,000,000 tonnes</i>	10	38,6
Oltre 3.000.000 di tonn. <i>Over 3,000,000 tonnes</i>	3	55,8
Totale / <i>Total</i>	29	100,0



Energy consumption

If 2008 was the year of record oil prices, 2009 was a more normal year, with the barrel maintaining an average price of sixty dollars. However it was not this dynamic (finally) favourable to the companies that contained energy costs but, unfortunately, the contractions in the amounts of energy used in the production processes owing to heavy decreases in production.

Despite this, to be underscored yet once again is the cement companies' strong commitment, achieved over years, to improve their plants' energy-efficiency levels. The enormous investments in technology made in the past by the cement companies enable them today to boast unit heat consumption levels that are competitive Europe-wide. At the same time they have put themselves forward as candidates for recovering the energy contained in wastes. This last aspect takes on particular significance, for it offers an excellent alternative in the integrated management of wastes, one able to ensure to the community savings of non-renewable natural resources and the recovery of wastes under highly controlled conditions.

In 2009 too thermal energy needs in the process of baking raw materials were met preponderantly by the use of such solid fuels as carbon (whether coal or pet-coke) that meets some 89% of the entire industry's energy needs. Its consumption decreased by 21% owing to the drop in production levels.

Electrical power consumption measured in 2009 dropped by more than 16% over 2008, ending up at a little above 4 GW-h. The efficiency of Italy's production plants indicates an average need of 110 KW (*forse* KW-h??) per ton of cement produced, a slight decrease over 2008.





CONSUMI ENERGETICI NEL 2009
ENERGY CONSUMPTIONS IN 2009

			2009/2008
Energia elettrica / <i>Electrical power</i>	kWh	4.006.315.831	-16,2%
Metano / <i>Natural Gas</i>	mc / m ³	30.896.487	-26,1%
Carbone / <i>Coal</i>	t / tonnes	2.654.249	-21,2%
Olio combustibile denso <i>Heavy fuel oil</i>	t / tonnes	93.040	-25,1%
Combustibili non convenzionali <i>Non-conventional fuels</i>	t / tonnes	280.000	-0,1%

ANDAMENTO DEI CONSUMI DI COMBUSTIBILI
BEHAVIOUR OF FUEL CONSUMPTION

	Carbone <i>Coal</i>	O.c.d. HFO	Metano <i>Natural gas</i>	Altri <i>Other</i>
				%
2000	90,9	5,1	1,8	2,2
2001	91,4	4,9	1,6	2,1
2002	91,1	4,6	1,3	3,0
2003	87,3	5,2	2,2	5,3
2004	87,7	4,9	1,7	5,7
2005	88,9	4,8	1,4	4,9
2006	91,0	4,0	1,1	3,9
2007	91,5	3,5	1,4	3,6
2008	88,8	3,9	1,3	6,0
2009	89,3	3,7	1,2	5,8

RIPARTIZIONE CONSEGNE NEL 2009
DELIVERY DISTRIBUTION IN 2009

	t / tonnes	%
Insaccato / <i>Sacked</i>	8.377.965	23,1%
Sfuso / <i>Bulk</i>	27.939.325	76,9%

ANDAMENTO RIPARTIZIONE CONSEGNE
DELIVERY DISTRIBUTION

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Insaccato / <i>Sacked</i>	23,2	22,2	21,7	21,0	22,1	21,9	20,5	20,9	21,6	23,1
Sfuso / <i>Bulk</i>	76,8	77,8	78,3	79,0	77,9	78,1	79,5	79,1	78,4	76,9

Cement transport

Analysis of delivery procedures in cement transport brings out some stability, relative to 2008, in the allocation of deliveries between bulk cement and sacked cement. In particular, bulk cement deliveries slightly decreased, ending up at a 76.9% share, with sacked accounting for the remaining 23.1%.

Bulk cement deliveries during 2009 amounted to 27.9 million tons, while sacked cement deliveries amounted to 8.4 million tons. The reasons behind this mix can be found through analysis of the intermediate destinations of cement, which in 2009 saw greater emphasis on resale, which prevalently purchases the sacked product.

Product movements by sea, measured through a survey commissioned by AITEC, amounted in 2009 to 201 thousand tons (net of import flows), following a path prevalently from South and Islands to Central and Northern Italy.

In 2009 the entry into force of the transport *scheda* (data card) and the descent in the cost of diesel fuel took second place relative to the persistence of the economic crisis, which brought about a substantial excess of truck-transport supply.

Truck transport had the benefit during the year of sustaining incentives, which concerned:

- diesel fuel excise taxes;
- motorway toll fees
- the purchase of new euro 5 trucks;
- funds for investments, aggregations (mergers) and training.

For the cement sector truck transport is of fundamental importance, whose cost at times amounts to a substantial percentage of the delivered product's cost. Expensive diesel fuel and the truck transport reform were an incentive, for AITEC's member firms, in their search for real logistics partners that would offer a greater quality and more reliable service.





Environmental regulations

Emissions Trading

As regards the fulfilments required for the ETS second period (2008-2012), during 2009 cement firms could refer to a rules picture that was finally complete. In February the National Assignment Plan (PNA2) was in fact adopted, and in June the decision bearing the title *Provisions for the enforcement of the Decision ...instituting guidelines for monitoring greenhouse-effect gas emissions and for communicating them* was published.

The second period too thus formally went into operation and cement firms were able to test themselves against the new rules, the inadequacy of which, in some respects, they unfortunately had to take into consideration, during a difficult economic period.

Particularly problematical turned out to be, for example, the rules governing New Entries (owing to the slenderness of the reserve), the need to make production more efficient and plant closures, confirmed within PNA2.

The instrument of making production more efficient could be an important opportunity during periods of crisis: it comes about when an installation authorized to emit greenhouse gas is closed and the activity transferred to another authorized plant, owned by the same company, in general indicated as a "receiving plant". In this case, if certain conditions come about, the receiving-plant owner obtains issuance of the quotas assigned the plant that has closed.

However, the uncertainties, due to the formulation of the regulation governing this instrument, which accompany the route of approval and acceptance of the applications regarding efficiency filed by the firms, heavily condition its efficacy. The operators are then asked to close a plant without having the certainty of a positive outcome of the application, with the danger of losing the closing plant's quotas and having to acquire on the market the production quotas transferred to the receiving plants. The possibility of losing the quotas is, during a period of prolonged crisis, in fact an implicit incentive to maintaining in being a low-efficiency production unit rather than, as would be more sustainable from every point of view, concentrate production in the best-performing plants.

But in 2009, so far as ETS is concerned, the cement sector did not have to take on only the application of the contingent measures for complying with the regulations in force. During the year that just passed, in fact, the international discussion on how to pursue the battle against climate changes for the period that is often called the "post-Kyoto" period, was very closely argued.

Europe, with Directive 2003/87/EC, instituting the EU-ETS system, had already anticipated the international measures envisaged by the Kyoto protocol. Europe then adopted, in April 2009, Directive 2009/29/EC, "which
m o d i f i e s



directive 2003/87/EC for the purpose of perfecting and extending the Community system for the exchange of greenhouse-effect gas emission quotas.”

The new directive no longer calls for the definition of national PNAs, but rather for direct allocation to the installations at the Community level. The quotas are conveyed for money (by an auction) with the exception of the sectors acknowledged as exposed to a high risk of delocation?? owing to distortions in competition between the several ETS and non-ETS – carbon leakage?? – countries, to which the quotas, allocated on the basis of sector benchmarks, are granted without charge. The criteria for evaluating the exposure of the various industrial sectors to the danger of carbon leakage have brought out a high exposure for the cement sector, just as had already been reported by the European cement industry. This, on the basis of the results of a study conducted to the purpose by Boston Consulting, in which the costs of investment, production and transport in the principal European countries and in the potential clinker and cement exporter countries to Europe were reconstructed and compared.

However, it is not to be forgotten that according to industry forecasts, the quotas allocated free of charge to the cement sector can not be adequate. It will thus anyway be necessary to find other quotas on the market. The sector will also have to support the increase in energy charges, due to the transfer of the costs tied to greenhouse-effect-gas emissions onto electrical power prices. Furthermore, the methodology envisaged by the directive for the definition of the sector benchmarks – which will be perfected by the Commission by the end of 2010 – is particularly insidious for the Italian cement industry and runs the risk of creating competitive distortions within the European sector itself, since it favours plants situated in the European countries where traditionally huge amounts of biomass are used. This will be to the disadvantage of those, such as the Italian plants, having an energy mix strongly unbalanced toward fossil fuels owing to the known difficulty, of an administrative and social nature, of using alternative fuels.

AITEC has more than once underscored, in the attempt to make the national institutions aware of the specific problems of the Italian cement sector, the consequences that could take place in the case in which this peculiarity were not acknowledged in the definition of the benchmark.

Above and beyond the aspects tied to the criteria governing quota allocations, which are nonetheless obviously of fundamental importance, what gives rise to preoccupation are most especially the ambitious reduction objectives laid down by the European Union. This, with its new ETS directive, confirms its commitment to reduce emissions by 20% by the end of 2020 and by 95% in 2050, with respect to 1990 values. It has also made manifest its intention to increase its objective up to 30% on condition that the other countries sign binding reduction commitments.

The principal cause for alarm for European industry in general, and in particular for such of its sectors as cement, which are most exposed to international competition, resides in the unilateral assumption by the EU of such binding engagements.

Internationally, in fact, the United Nations Conference on Climate Change, organized in Copenhagen in December 2009, its objective to define an agreement on the climate that could replace the current Kyoto protocol, has not led to the results expected.

Right from the start of the work, in fact, heavy difficulties were encountered in the dialogue between the various countries owing to a growing gap between the different positions, in particular between those of the industrialized countries and those of the developing countries.

The EU, despite the fact that on its very interior a fracture has been created between the countries anyway ready to increase the Community objective and those (among which Italy) who instead have defended the principle of the comparability of the objectives with those of other industrialized countries, has firmly sustained the need to reach an ambitious global agreement legally binding for all, confirming the Community objectives already established. After a closely-argued negotiation, non devoid of heated discussions, a policy agreement was finally reached, called "the Copenhagen accord", which was signed after a negotiation between a few, from which the EU was excluded. It could not be formally adopted because of the opposition of several of the developing countries (the United Nations Climate Convention requires unanimity).

The agreement reached, of which the EU could do little more than take note, acknowledges, by all countries party to it, the need to act jointly to effectively counter the effects of climate change. It envisages that the industrialized countries and the principal emerging countries communicate their reduction objectives by the end of February 2010.

The industrialized countries, furthermore, are to furnish resources to the developing countries. The agreement has no legal value and the commitments indicated by the various countries display very different objectives, whether in quantitative terms, whether in terms of reference years.

If on the one hand then, the disappointing outcome of the Copenhagen summit has definitely blocked the laying down of conditions to increase the European emissions-reduction objective by 30%, the concern with which the cement industry views the international scene taking shape cannot anyway be surprising. The cement sector in fact cannot but reconfirm its conviction – shared by *Confindustria* – that an international agreement to reduce emissions should take as top priority the avoidance of distortions in international competition and must permit European companies to go on being competitive at the world level to sustain economic growth, create employment and actively pursue carrying on their role in the battle against climate change.

One possible alternative able to eliminate market distortions arising from the different costs of conformity with the emissions limits, already the subject of an in-depth study conducted by Boston Consulting, could be the inclusion of importers in the ETS. This could be done through a system respectful of the rules of international trade but such as to impose the same charges on European producers as on extra-European, in such fashion as to reduce the competitive disadvantage accruing to the former from the unilateral engagements to reduce emissions envisaged by the EU. Much then remains to be done to arrive at a framework that assures the hoped-for "level playing field" for our firms that already today must comply with a binding, and demanding, emissions-reduction objective with all the costs that follow from this.

REACH (Registration, Evaluation, Authorisation of Chemicals)

The phase of chemicals pre-registration having been filed away then, the resort to which enabled companies to make use of a longer transitory period to carry out the definitive registration of chemicals, during the year the operational phase was gone on to, represented by the preparation for registration, also through consortiums specifically set up for the purpose, often on the basis of the work carried out within the SIEF (Substances Information Exchange Forum). As is known, the registration process requires the manufacturer



and the importer to furnish information on all chemicals produced or imported into the EU. For registration purposes a file must be submitted, containing information on the chemicals and on the risks that the chemicals involve, as well as the appropriate measures for handling the risks.

The SIEFs are the tools envisaged by REACH for sharing data for ordinary registration of the same substance and for distributing costs and averting duplication of tests. The companies that have pre-registered their substances take part in the SIEF for that same pre-registered substance. Although REACH does not expressly provide for the formation of consortiums among the companies, the consortium is the most fitting instrument for gathering the data in possession of the companies concerned with registering one and the same substance.

This type of fulfilment has concerned the cement firms that, sharing the approach adopted by the entire European cement sector, have joined the "flue dusts" Consortium, referring to the electrofilter dusts (CKD: clinker kiln dust and BPD: by-pass dust). This was made necessary since the dusts constitute a product of their business. Because of the quota part of dusts used in cement production, as well as of the small amounts that may be marketed, their registration is in fact obligatory.

Therefore, besides the fulfilments envisaged in so far as they are users of substances and because of the relations within the supply chain, cement firms producing electrofilter dusts have formed a consortium to exploit the advantages, both technical and economic, offered by taking part in consortiums for carrying on the "joint" registration procedure for this substance and to permit them its future use.

Different instead will be the development of pre-registration carried out as a precaution for substances recovered during the cement production cycle, since the status of waste that in Italy characterizes them will permit the firms, by virtue of what the Community regulation itself sanctions, to go ahead with their use owing to the registration carried out by the respective producers in the European countries where such materials are classified as by-products.

Regarding the new features in regulations that have come about, the study and implementation phase was started off for the incorporation of the current European Rules picture as envisaged by the new CLP Regulation (Classification, Labelling, Packaging) no. 1272/2008 for substances and mixtures, which went into force on January 20th 2009 and has definitively introduced the United Nations' so-called GHS (Globally Harmonized System) into Europe. Therefore, by December 1st 2010 for substances and by December 1st 2015 for mixtures, it will be obligatory to adopt the new system of classification. This will involve, for one thing, the revision of all safety data cards (SDSs).

Cement and the hexavalent chromium requisite: product conformity and the protection of the market

In compliance with the prescriptions of the REACH regulation, which has gathered together in a single measure all the regulations regarding chemicals and their mixtures, as is by now known all the cement produced, marketed, and used on Italian territory, as in the rest of Europe, must have a water-soluble hexavalent chromium content of less than 0.0002% (two parts per million). This





measure was introduced to protect the health of workers, who can encounter chromate allergies if their skin comes in direct contact with cement untreated by special reducing agents.

In relation to the problems tied to application of this measure, episodes occurred during the year that gave rise to concern among the nation's cement producers, and led the Association to query the bodies competent for imports and vigilance over the market. The episodes concerned the placement on the nation's market of cements imported from extra-EU countries for which there was well-founded suspicion that hexavalent chromium was present in concentrations well above the permissible threshold value. Furthermore the obligatory warning to consumers, consisting of the Safety Data Card and the labelling on the packages, was missing, as was the delivery documentation. This same problem was facing other EU countries as well, where the authorities, solicited by their national cement producers, had taken timely action to tighten inspections on imports.

The danger of hexavalent chromium resides not just in its danger to workers' health, but also in the illicit advantage taken, to the detriment of home cement producers, who have upgraded their plants to carry out treatments with reducing agents at considerable cost, outfitting their product voluntarily with the trademark Cromino® as a sign of the existence of a system for specifically adapting the production process to handle the chromium content, as required by UNI EN standard 196-10.

The initiatives undertaken by the Association to cope with the critical situation that was taking shape concerned two areas: the institutional and that of the clientele.

The first involved sensitizing the Customs agency, the Ministry for Economic development and the Financial Police, as well as the EU commission, as to the need to start up more rigorous procedures for checking products put on the market. The outcome of this activity has been significant, in that the Ministry requested the support of the Special Corps of the Financial Police to carry out a large number of inspections, while the health Ministry published a circular letter sent to the Regions and to the Customs Agency to urge inspection and verification of the products put on the market.

In the second case, instead, a warning to the clientele was sent to the associations of all sectors forming part of the cement string, its purpose to give maximum visibility to the presence on the market of cements having a hexavalent chromium content exceeding the limit set by the regulations at 2 ppm.

Contributing to increase awareness of and attention to this question has also been the issuance during September 2009 of a decree-law that laid down sanctions for both producers and users on the marketing of products subject to restrictions and not in conformity.

Revision of the IPPC directive

During 2009 the process of the revision of the IPPC Directive, re-named IED (Industrial Emissions Directive), continued at the Europe-wide level. The new text envisages filling out the IPPC directive with another six sector directives, among them: Large combustion installations, Incineration and co-incineration plants, Plants using solvents, and Titanium dioxide production plants.

The Commission, with this new proposal for regulation, intends to strengthen some provisions and to add others having as their aim to improve control of the application of the legislation by the competent authorities, thus achieving a higher level of environmental protection. The new measure, filling out the numerous sector directives mentioned, proposes as well to simplify the rules and to keep down bureaucratic red tape.

European industry at once recognized the innovative approach introduced by the IPPC directive, but at the same time brought out that at the time of introduction of the proposal for revision by the Commission it was not as yet possible to fully evaluate the results of its application, considering that the deadline set for upgrading the plants to the new provisions was October 2007. In this sense the new proposal for directive can appear premature.

The new regulations also pursue the aim of greater environmental protection through a stiffening of the principle of flexibility on which the IPPC directive is founded. But in the industry's opinion this objective should be pursued through more effective enforcement of already-existing legislation in the member states and a more rigorous procedure governing issuance of authorizations at the national level.

Safeguarding the principle of flexibility is for the cement sector, as it is for all industrial sectors, of top priority and for this reason the work involved in getting approval of the new regulations is the subject of special attention by the sector associations, Italian and European.

The BRefs are the reference documents for the BAT (Best Available Techniques). In the BRefs are identified emission levels expressed as intervals of values that reflect the performance that can generally be achieved through application of the BAT, but do not bear technical prescriptions or indications of emissions limit values. The new directive runs the risk of rigidifying the flexibility tied to the BRefs since there is a tendency to attribute a binding character to the BRefs themselves and to the limit values associated with the BAT.

Furthermore, it is of the greatest importance that the text of the new directive be consistent with the sector BRefs identifying the BAT.

With regard to the cement sector, the BRef (2001) was one of the first to undergo the process of revision, which ended on May 18th 2010 with its formal adoption by the European Commission.

Another new feature – rather critical for the cement industry – is the possibility, envisaged by the new regulations, to set up an Emissions Trading system for NOx and SO2 emissions. This new feature was the subject of an in-depth discussion during the first reading before the European Parliament.

The cement sector, through its own European association (*Cembureau*) has commissioned the Ecofys (Netherlands) company to make an independent study whose aim is to understand the technical and economic impact that this system would exert on our production sector. The results of the study, based on current NOx and SO2 emissions levels, and on the state of application of the BAT at the level of the individual installation, show that the impact would be critical for European cement works, already subject to very restrictive limits for these parameters and to high specific costs for the installation and running of updated abatement systems. The European parliament pronounced its approval on the first reading in March 2009 and the EU Council adopted the common position in June 2009. The text is now being studied by the two institutions on second reading and heated discussions are underway on the principal topics, which will be closely followed by industry representatives.



Incorporation into the Italian legal system of the Wastes Framework Directive and revision of the environmental consolidation act (decree-law 152/06)

During the year two important “law construction yards” opened up nationally: the work for the incorporation into the Italian legal system of the Wastes Framework Directive (dir. 2008/98/EC), which ought to end by December 12th 2010, and that for the revision of the environmental consolidation act (decree-law 152/06), to be finalized by June 30th 2010.

Italy is about to be the first country in Europe to incorporate the Wastes Framework directive into its legal system, within the framework of the revision of the environmental consolidation act, and therefore ahead of the European deadlines.

The law-forming processes underway, with special reference to the incorporation of the Wastes Framework Directive, are of considerable interest for the cement sector, which hopes that, in this context, a number of principles can be put into effect that would contribute in determining fashion to increasing the use of secondary raw materials and of alternative fuels in cement works, with significant benefits for the environment and for the competitiveness of Italy's entire cement industry.

In particular, the cement sector's top-priority objectives are:

- obtaining classification as “by-product” of some wastes used today in Italian cement works for the recovery of material, following a practice by now consolidated in many environmentally-advanced member states (e.g. Germany);
- the clarification, nationally, of End Of Waste criteria, envisaged by the Directive to confirm the cessation of the qualification as waste of some alternative fuels used today in cement works;
- the resolution of the conflicts of regulations that today affect the issuance in definite times of environmental authorizations.

The correct use of the Community notions of “by-product” and “End of Waste”, on the one hand, and the simplification of the authorization procedures, on the other, can in fact be vital contributions to achieving the objectives mentioned and to permitting Italy to undertake the path that can lead to levels of use of alternative materials and fuels at least comparable with European averages.

Considering the strategic importance of these topics AITEC has started up a discussion with the institutions concerned, one still underway, on the cement sector's expectations and proposals.

Regarding the simplification of the procedures for the issuance of authorizations, AITEC has furthermore taken active part in the work carried on by CNEL (National Council on the Economy and on Work) in carrying out the inter-institutional agreement with the Minister for the Simplification of Rules. The agreement, signed on July 24th 2008, concerns the reform and simplification of regulations in the economic and social fields.

In April 2009 CNEL presented to the competent ministries the document *Legislative proposals for the simplification of company fulfillments in environmental matters*. It contains the requests of various industrial sectors for the simplification of procedures at the charge of companies, by identifying duplicate procedures and those that can be lumped together without modifying the levels of safeguard currently envisaged by environmental regulations.

The proposals put forth by *Confindustria* were received by those responsible within the institutions, who have identified in the revision of decree-law 152/2006 the opportune occasion for evaluating the possibility of incorporating them.





AITEC campaign for communication on wastes

2009 saw an important Association activity regarding communication, with a continuation of the initiatives undertaken at the end of 2008, aimed at making public opinion aware of the topic of wastes recovery in cement works. One accomplishment was the creation, during May 2009, of the website www.aitec-ambiente.org, wholly devoted to the use of wastes in the cement production process.

The site was rapidly discovered by the most important search engines, and appears in first place when sought using such key words as "cement-sustainable, cement-emissions, cement works-environmental impact" and so on.

The site is offered as a point of reference, able to provide information on many relevant topics, as well as on AITEC initiatives, including updatings on the national and Community environmental regulations for cement plants, and on wastes-recovery technologies used in cement works in Italy and in the world.

The opinion of the numerous visitors (public administrations, private citizens, cement operators, universities and research institutes, Association member firms, other cement associations) on the quality and amount of information present has been better than positive. Links to www.aitec-ambiente.org are to found on the web, as well as in the pages of *Cembureau* and of member firms, and also in the pages of the *Forum PA*, *Ecomondo* and on the website of the wastes forum in the Campania region.

RECUPERO ENERGETICO RIFIUTI ENERGY RECOVERY ALTERNATIVE FUELS	
Tonnellate / Tonnes	2009
Rifiuti non pericolosi / Not hazardous waste	
CDR di qualità normale (UNI 9903-1) RDF (*)	117.000
CDR di qualità elevata (UNI 9903-1) RDF-Q (*)	27.700
Farine animali, grassi animali Animal meal and fat	23.000
Plastiche, gomme Rubber, plastic	6.000
Pneumatici Used tyres	48.500
Altro (es. fanghi, rifiuti comb. liquidi) Others (i.e. sludge, pulp, liquid waste fuel)	8.100
Rifiuti pericolosi / Hazardous waste	
Oli usati/emulsioni oleose Waste oils	31.000
Solventi non clorurati No chlorinated solvents	18.700
Totale / Total	280.000
Sostituzione calorica (%) Thermal substitution rate (%)	7,4%

(*) CDR: Combustibile Derivato da Rifiuti
RDF: Refuse-Derived Fuel

*Data on energy and materials recovery from wastes are to be considered as provisional estimates.
The real balance-sheet data will be worked up on the basis of the MUD 2010 (Sole Wastes Declaration form) that firms must file with the environmental Ministry with data for 2009.
For 2010 the deadline for consignment of the MUD by the firms was postponed from April 30th to June 30th.
It is estimated that the total amount of alternative fuels used to replace fossil fuels will remain unvaried in 2009 relative to the preceding year.
Despite this the percentages of thermal substitution will be greater in 2009 (7.4%) than in 2008 (6.0%). With the dip in clinker production, thermal energy needs also diminished for the cement kilns: the plants authorized for energy recovery (R1) have in fact used the authorized yearly amounts of alternative fuels and have diminished their use of traditional fossil fuels.*

Freely downloadable from the site are more than 220 documents, among which engineering and scientific articles published in important national and international specialized periodicals, reports and studies on handling wastes made up by Italian institutions and research bodies, and independent studies on environmental impact and on the health of the cement production process. All documentation on the site is periodically updated.

In the *Multimedia* section access can be had to video streaming containing both AITEC articles and those of associated firms on the media, and popularizing film clips created by the member firms to promote, internationally, wastes recovery in cement works.

One projected site feature is the creation of a "community", having reserved access, to host and stimulate dialogue and comparisons of views on the principal topics of cement works' environmental impact among those operating in the field and among officials of national and local public administrations, entrusted with authorization procedures. The creation of the on-line community responds to the need, which came out during the public meetings with AITEC, of local administrations to deal with such topics. At one year from its creation, the site's more than 38,000 hits and 13,000 documents downloaded for consultation are an unmistakable signal of the interest in such topics and a confirmation of the work carried on by the Association.

RECUPERO DI MATERIA DA RIFIUTI MATERIAL RECOVERY FROM WASTE

Tonnellate / Tonnes

Tipologia di rifiuto / Waste category	2009
Ceneri da impianti di combustione / Fly and bottom ashes	570.000
Gessi chimici / Chemical gypsum	220.000
Fanghi da lavorazioni varie / Sludges	68.000
Rifiuti inerti / Inert waste	65.000
Scorie industria siderurgica / Slags from steel Industry	215.000
Totale / Total	1.138.000

Data on energy and materials recovery from wastes are to be considered as provisional estimates. The real balance-sheet data will be worked up on the basis of the MUD 2010 (Sole Wastes Declaration Form) that cement firms must file with the Environmental Ministry with data for 2009.

For 2010 the deadline for consignment of the MUD by the firms was postponed from April 30th to June 30th.

The total of wastes used instead of natural raw materials (1,138,000 tons) underwent a dip in 2009 under the previous year (1,460,000 tons) owing to the drop in cement production and to the consequent lower consumption of natural and alternative raw materials.



FORUM PA 2009

That Forum PA 2009 was a successful initiative is shown by the numbers describing it: 13,219 square meters for 315 exhibitors, an average daily participation of 8,000 persons, more than 400 accredited reporters. During the event the central and local public administrations, economic operators and citizens met and discussed their views on proposals and solutions regarding the principal technical and administrative topics. Among the topics of discussion in the 2009 Forum, and of particular interest to AITEC, are to be noted the one on the promotion of renewable energy sources: from the construction of wind-power and photovoltaic parks to the use of wastes for power generation through heat-exploiters, biomass treatment plants and cement works. AITEC took part in Forum PA with its own stand, within which a Master's training course was held by technical people belonging to the Association and by public administration executives. The Master's enabled the presentation of witnesses of authorization and control routes that have enabled cement firms to become part of a virtuous circle for wastes handling on the territory. With the organization of the Master's AITEC could also reconfirm that the use of non-conventional fuels is a feasible alternative to traditional energy sources, one that fully respects the product's quality standards and environmental safeguarding. This initiative also encouraged an institutional information campaign to facilitate the definitive clarification of laws and procedures as regards the cement industry's use of alternative fuels. Furthermore, it also formed the occasion to set forth the role that the cement industry can play in the search for alternative energy sources for its production cycle, with the dual purpose of safeguarding traditional non-renewable energy resources and of contributing to the economic development of the territory in which it works.

Ecomondo 2009

The second fair of importance during the year was *Ecomondo*, the international salon for materials and energy recovery and for sustainable development, headquartered in Rimini. This event involved 1500 companies, more than 65,000 visitors and an offer of initiatives that embraced various goods sectors drawing inspiration from the culture of recovery and re-use. AITEC brought to Ecomondo the experience of its member firms and the results obtained in the field of wastes exploitation (among which CDR?? and purification slimes). The road travelled by the integrated handling of wastes in the areas of study selected was directly recounted by those involved, by the cement firms and by other operators in the cement string. The experiences presented brought out the advantages of the use of wastes in cement works, in partial substitution for both traditional fuels and raw materials of natural origin. In both the Forum PA and the Ecomondo gatherings the cement sector found an invaluable forum for bearing concrete witness to virtuous-circle cooperation between administrators and firms to obtain wastes-recovery authorizations. Administrators and inspectors, underscoring their cooperation with the associated member firms, could forward to their colleagues reassuring messages on the use of wastes in cement works. Furthermore, during the discussion, with Administrations(??cosa significa??) present, between AITEC and representatives of the environmentalist associations, favourable opinions were expressed on more than one occasion – by the latter as well – on the recovery of alternative materials in cement works. Thus confirmation was had of AITEC's conviction that the dissemination of knowledge of the reality in which environmental and social problems can be taken on and resolved profitably for everyone concerned (administrators, businessmen, the community at large and environmental associations) can constitute an incentive for the use of these same solutions and tools in other similar situations.





Promotional and popularizing activities

AITEC and the third campus of the University of Rome arrive at the seventh MICA Master's program

The second-level university Master's degree, entitled *Innovation in design, rehabilitation and inspection of reinforced-concrete structures* concluded in 2009 its seventh version, which started up in Autumn 2008. It was financed by AITEC and coordinated by prof. Camillo Nuti of the University of Rome – Three, with the cooperation of another seven national universities.

It involved forty-two instructors, twelve months of study, successive stages lasting from three to six months and the certainty of an offer of employment at the end of the training route. On the employment level, from the time the Master's was first offered an average of 49% of the students have found jobs, and 37% have started up activities as free-lance professional men.

The stages provide the possibility of obtaining experience in the world of work and are a fundamental phase of this initiative, which intends to train professional men of high competence, specializing in the design, construction, and inspection of reinforced-concrete structures. With highly qualified specialist classroom lessons the Master's goes in depth into topics regarding techniques and materials – and not only conventional ones but also those advanced and innovatory that are significantly modifying the principles of structural design.

Special attention was given to aseismic construction, with the study of particular criteria and construction – and monitoring – techniques suited to the problem. Devoted to topics of design in seismic areas and of sustainability tied to post-earthquake reconstruction were, during the year, a series of conferences aimed at going in depth into the topic and at the witness borne by direct operators. Among the instructors and speakers were professors coming from universities in Spain, Great Britain and Portugal. An exchange of views between professors that constitutes the special characteristic of fertile heterogeneity and internalization of the team are one of this initiative's value-added.

In the field of architecture topics taken on concerned the rapport between form and function in new constructions. In the papers dealing with the existing, what was instead gone into was the relationship between a project of consolidation and structural reinforcing, and the needs of conservation.

In Autumn 2009 the eighth program was launched, the last of the second four-year period, which started up in February 2010.



The forms of cement – Plasticity(??Dynamicity?)

Among the projects for 2009 is to be mentioned the third volume of the publishing series *The Forms Of Cement*, entitled *Dynamicity*.

The architecture series, conceived and promoted by AITEC and directed by prof. Carmen Andriani, documents, through a series of correlated volumes, the formal and technical extension that concrete is able to express. Lightness, plasticity, dynamicity, sustainability and “concreteness” are some of the formal categories according to which the possibilities of form and of construction of works in concrete can be unfolded, independently of typology: be they buildings for worship, infrastructures, stations and museums, or structures for entertainment or sport.

The volume will be published during the coming year, after the preceding ones: *Lightness*, (Gangemi publishers – 2006) and *Plasticity* (Gangemi publishers- 2008).







FEDERBETON at the 2009 SAIE

FEDERBETON, Federation of the Associations of the cement and reinforced-concrete string, which came into being in 2008, was the proponent and promoter of all the *SAIE Concrete 2009* initiatives that had as protagonists the associations belonging to it.

Among the many initiatives to mention is 1) the gathering organized by the Consultancy for Concrete, devoted to the analysis of the market of constructions and analysis of the reinforced-concrete string, with the presentation of the Cresme report; 2) the day promoted by ASSOBE-TON and devoted to the presentation of the topic and of the volume *One hundred advantages of industrialized concrete construction*; 3) the gathering devoted to Technical Standards for Construction, indispensable for safe construction, organized by ATECAP with the Higher Council of Public Works, with present the FEDERBETON board chairman, Mr. Augusto Federici.

Of great interest too was the seminar organized by *Project Concrete*, entitled *The Aquila Earthquake - diary of a reconstruction experience* with the participation of representatives of the Civil Defense department and of the *ForCASE* consortium.

Such topics as energy efficiency and municipal regulations were taken on during the round table discussion promoted by the Bologna Fair: *SAIE Energia, Legambiente* and *Cresme*, in which chairman Augusto Federici took part.

All the meetings and the various initiatives underscored reinforced concrete's role of undisputed protagonist at the *SAIE Concrete* gathering, and demonstrated how it and its technology are the interpreters of construction today.

In this regard, the conference: *Designing with reinforced concrete: UNstudio's seductive architecture* presented extraordinary applications of reinforced concrete and design methods among the most advanced used by the Van Berkel offices, winner of the 2008 high-prestige Concrete Architecture Award for the design of the Mercedes-Benz museum in Stuttgart. This museum is an example of futurist engineering for its use of innovatory materials and for its choice of vanguard techniques and 3D technology.







- CEMENT INDUSTRY ACTIVITIES

- CEMENT PRODUCTION, DEPOSITS AND CONSUMPTION BY GEOGRAPHIC AREAS

- MONTHLY CEMENT PRODUCTION

- WORLD CEMENT PRODUCTION



ATTIVITÀ DELL'INDUSTRIA CEMENTIERA
CEMENT INDUSTRY PRODUCTION

ATTIVITÀ DELL'INDUSTRIA CEMENTIERA DAL 1984 AL 2009
CEMENT INDUSTRY PRODUCTION FROM 1984 THROUGH 2009

	000 t / 000 tonnes				milioni di Euro correnti millions of current Euro
	Produzione Production	Consegne interne Domestic deliveries	Esportazioni (*) Exports (*)	Importazioni (*) Imports (*)	Investimenti (**) Investments (**)
1984	38.851	38.351	522	252	n.d / n.a.
1985	37.266	36.960	384	381	n.d / n.a.
1986	35.909	35.857	275	319	n.d / n.a.
1987	37.008	36.728	375	765	n.d / n.a.
1988	38.747	38.441	358	1.889	n.d / n.a.
1989	40.374	40.040	351	2.347	n.d / n.a.
1990	40.751	40.438	338	2.906	n.d / n.a.
1991	40.717	40.541	273	3.042	n.d / n.a.
1992	41.347	41.200	255	3.637	n.d / n.a.
1993	34.705	34.623	255	3.182	n.d / n.a.
1994	33.084	32.443	678	2.454	n.d / n.a.
1995	34.019	32.821	1.330	1.841	123
1996	33.832	32.346	1.651	1.304	99
1997	34.378	32.384	2.136	1.533	86
1998	36.076	33.601	2.731	1.185	93
1999	37.299	34.690	2.572	1.677	138
2000	39.020	36.544	2.561	2.340	208
2001	39.804	37.250	2.577	3.220	201
2002	41.417	39.168	2.357	3.878	365
2003	43.462	41.310	2.233	4.525	225
2004	46.053	44.082	2.006	4.996	222
2005	46.411	43.884	2.433	4.996	195
2006	47.875	45.130	2.698	4.621	251
2007	47.542	44.918	2.783	4.276	210
2008	43.030	40.555	2.574	3.355	250
2009	36.317	34.344	1.955	3.237	200

(*) Cemento e clinker / Cement and clinker

(**) Dati Eurostat fino al 2006; stimati dal 2007 / Eurostat data through 2006; estimated from 2007



PRODUZIONE, GIACENZE E CONSUMI DI CEMENTO PER CIRCOSCRIZIONI GEOGRAFICHE
 CEMENT PRODUCTION, STOCKS AND CONSUMPTION BY GEOGRAPHIC DISTRICT

CONSUMI APPARENTI PER ABITANTE APPARENT CONSUMPTION PER INHABITANT						
	Totale <i>Total</i>	Settentrione <i>North</i>	Centro <i>Centre</i>	Meridione <i>South</i>	Isole <i>Islands</i>	Media <i>Average</i>
	t / tonnes	kg / kg				
1994	34.868.291	601	631	516	541	610
1995	34.638.927	652	604	515	525	605
1996	33.622.812	656	595	483	553	586
1997	33.767.446	640	620	522	561	587
1998	34.685.376	646	681	564	598	603
1999	36.147.317	666	698	603	588	628
2000	38.337.636	711	689	626	627	664
2001	39.468.813	742	722	635	712	703
2002	41.268.850	801	716	629	664	724
2003	43.511.280	831	770	659	704	763
2004	46.357.983	838	783	730	753	792
2005	46.051.596	831	792	747	746	794
2006	46.878.642	833	811	785	797	813
2007	46.367.798	834	823	726	636	804
2008	41.813.708	737	693	712	707	719
2009	36.085.816	613	602	616	553	605 (*)

(*) Calcolati sulla popolazione del giugno 2009 / Computed using june 2009 population data

GIACENZE
STOCKS

	Cemento / <i>Cement</i>	Clinker
	t / tonnes	t / tonnes
1994	1.160.109	2.193.567
1995	1.220.757	2.440.921
1996	1.183.224	2.521.632
1997	1.172.970	2.689.417
1998	1.063.428	2.081.337
1999	1.192.566	2.202.105
2000	1.201.977	2.005.533
2001	1.279.092	2.317.193
2002	1.254.109	2.040.430
2003	1.228.064	2.091.439
2004	1.199.601	2.471.218
2005	1.300.625	2.702.014
2006	1.409.303	2.267.047
2007	1.392.320	2.894.688
2008	1.331.018	3.458.970
2009	1.354.331	2.687.809

PRODUZIONE, GIACENZE E CONSUMI DI CEMENTO PER CIRCOSCRIZIONI GEOGRAFICHE DAL 1994 AL 2009
 CEMENT PRODUCTION, STOCKS AND CONSUMPTION BY GEOGRAPHIC DISTRICT FROM 1994 THROUGH 2009

	Settentrione <i>North</i>	Centro <i>Centre</i>	Meridione <i>South</i>	Isole <i>Islands</i>	Totale / <i>Total</i> 000 t / 000 tonnes
1994	15.281	6.913	7.260	3.630	33.084
1995	16.572	6.637	7.266	3.544	34.019
1996	16.709	6.549	6.835	3.739	33.832
1997	16.347	6.833	7.400	3.798	34.378
1998	16.527	7.520	7.983	4.046	36.076
1999	17.085	7.730	8.520	3.964	37.299
2000	18.311	7.653	8.834	4.222	39.020
2001	18.973	7.648	8.640	4.543	39.804
2002	20.473	7.809	8.753	4.382	41.417
2003	21.247	8.395	9.173	4.647	43.462
2004	22.025	8.763	10.255	5.010	46.053
2005	21.972	8.940	10.524	4.975	46.411
2006	22.295	9.216	11.049	5.315	47.875
2007	22.295	9.243	10.714	5.290	47.542
2008	20.095	8.130	10.065	4.740	43.030
2009	16.779	7.107	8.721	3.711	36.318



PRODUZIONE MENSILE DI CEMENTO
MONTHLY CEMENT PRODUCTION

PRODUZIONE MENSILE DI CEMENTO DAL 1999 AL 2009
MONTHLY CEMENT PRODUCTION FROM 1999 THROUGH 2009

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
	t / tonnes										
Gennaio / January	2.293.416	2.353.532	2.453.949	2.485.318	2.650.781	2.828.628	2.873.488	2.879.298	3.362.061	2.954.302	2.073.707
Febbraio / February	2.472.384	3.093.299	2.951.315	3.158.838	3.226.042	3.565.623	3.267.192	3.521.899	3.734.582	3.802.125	2.674.924
Marzo / March	3.303.655	3.675.380	3.595.884	3.887.004	4.153.230	4.116.383	3.964.373	4.157.734	4.482.755	3.894.302	3.398.697
Aprile / April	3.223.971	3.258.450	3.320.671	3.407.565	3.765.823	3.980.129	4.180.410	4.038.604	4.005.422	3.930.523	3.050.321
Maggio / May	3.602.843	3.804.682	3.776.109	3.992.488	4.239.299	4.436.008	4.635.124	4.561.578	4.461.975	4.126.485	3.597.787
Giugno / June	3.553.637	3.702.130	3.884.029	3.843.681	4.025.937	4.225.713	4.427.626	4.509.880	4.389.989	3.967.000	3.432.347
Luglio / July	3.795.676	3.803.920	3.851.438	3.994.457	4.204.915	4.540.839	4.629.252	4.664.480	4.600.814	4.284.028	3.775.256
Agosto / August	2.471.169	2.527.502	2.524.345	2.658.833	2.566.117	2.815.507	2.891.532	3.013.021	2.825.102	2.478.919	2.194.072
Settembre / September	3.371.174	3.496.719	3.590.840	3.613.587	3.694.826	4.188.153	4.084.987	4.154.101	4.090.886	3.733.359	3.233.181
Ottobre / October	3.578.940	3.447.784	3.921.608	3.917.220	4.134.038	4.471.334	4.357.963	4.585.143	4.382.702	4.217.176	3.571.780
Novembre / November	3.028.064	3.051.364	3.377.913	3.646.509	3.914.649	3.708.516	3.987.944	4.295.861	3.944.004	3.450.650	3.168.909
Dicembre / December	2.604.015	2.805.387	2.555.967	2.811.112	2.885.873	3.175.848	3.111.495	3.493.350	3.261.345	2.191.051	2.146.309
Totale / Total	37.298.944	39.020.149	39.804.068	41.416.612	43.461.530	46.052.681	46.411.386	47.874.949	47.541.637	43.029.921	36.317.290

PRODUZIONE DI CEMENTO PER MESI E PER CIRCOSCRIZIONI GEOGRAFICHE NEL 2008 E NEL 2009
MONTHLY CEMENT PRODUCTION BY GEOGRAPHIC DISTRICT IN 2008 AND 2009

	Italia Settentrionale Northern Italy		Italia Centrale Central Italy		Italia Meridionale Southern Italy		Italia Insulare Italian Islands		Totale Total	
	2009	2008	2009	2008	2009	2008	2009	2008	2009	2008
	t / tonnes									
Gennaio / January	879.861	1.274.037	460.795	568.125	502.095	740.229	230.956	371.911	2.073.707	2.954.302
Febbraio / February	1.274.726	1.785.960	526.520	725.189	581.692	868.994	291.986	421.982	2.674.924	3.802.125
Marzo / March	1.674.299	1.936.155	657.716	686.301	747.563	848.522	319.119	423.324	3.398.697	3.894.302
Aprile / April	1.412.379	1.789.462	603.621	754.983	722.756	927.984	311.565	458.095	3.050.321	3.930.523
Maggio / May	1.660.370	1.937.392	703.234	767.991	858.573	967.881	375.610	453.222	3.597.787	4.126.485
Giugno / June	1.596.131	1.863.936	661.488	764.640	823.948	894.839	350.780	443.585	3.432.347	3.967.000
Luglio / July	1.774.127	2.049.748	731.248	830.732	905.884	972.547	363.997	431.001	3.775.256	4.284.028
Agosto / August	952.581	1.147.634	431.039	464.607	595.364	595.033	215.088	271.646	2.194.072	2.478.919
Settembre / September	1.462.456	1.773.640	635.658	731.584	792.004	851.023	343.063	377.112	3.233.181	3.733.359
Ottobre / October	1.685.520	2.030.133	688.404	782.776	862.198	971.485	335.659	432.782	3.571.780	4.217.176
Novembre / November	1.484.078	1.566.903	595.816	644.865	759.903	846.223	329.112	392.660	3.168.909	3.450.650
Dicembre / December	922.360	940.006	411.040	408.559	569.133	579.841	243.776	262.645	2.146.309	2.191.051
Totale / Total	16.778.888	20.095.004	7.106.579	8.130.352	8.721.113	10.064.600	3.710.710	4.739.965	36.317.290	43.029.921

PRODUZIONE MONDIALE DI CEMENTO
WORLD CEMENT PRODUCTION

PRODUZIONE MONDIALE DI CEMENTO DAL 2005 AL 2009
WORLD CEMENT PRODUCTION FROM 2005 THROUGH 2009

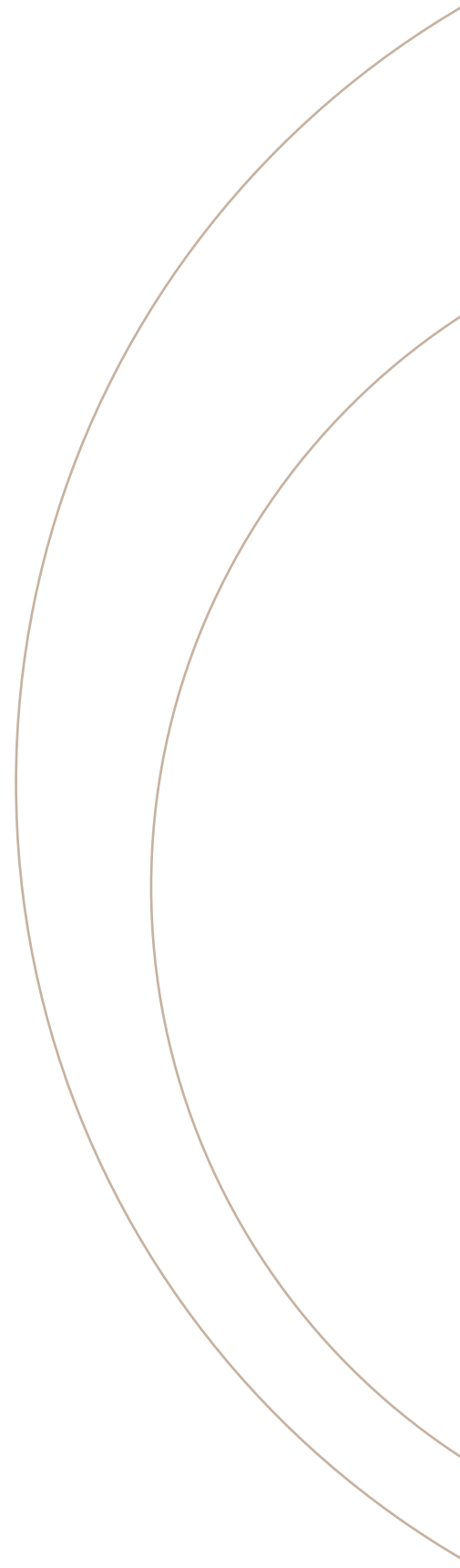
	2005	2006	2007	2008	2009	2009 2008	2009 2005	2005	2009
	Milioni di t / Millions of tonnes					Variazioni % / Change %		Incidenza % / Percentage %	
Asia / <i>Asia</i>	1.603,8	1.808,4	1.962,0	2.012,9	2.275,4	0,0	25,5	68,2	72,6
di cui Cina / <i>China</i>	1.079,6	1.253,5	1.377,8	1.388,4	1.637,1	17,3	51,6	45,9	59,1
di cui Giappone / <i>Japan</i>	72,7	73,2	71,4	67,6	59,6	-11,9	-18,1	3,1	2,1
di cui India / <i>India</i>	146,8	162,0	172,9	185,9	193,1	3,8	31,5	6,2	7,0
Europa / <i>Europe</i>	312,2	329,8	338,1	316,7	273,1	-15,3	-13,8	13,3	9,7
di cui Italia / <i>Italy</i>	46,4	47,9	47,5	43,0	36,3	-15,6	-21,7	2,0	1,3
CIS	78,1	87,9	96,6	90,3	76,2	0,0	15,6	3,3	3,3
di cui Russia	49,5	55,2	60,1	53,6	47,2	-9,8	-4,6	2,1	1,7
America / <i>America</i>	244,4	254,5	263,9	259,1	237,2	0,0	6,0	10,4	9,3
di cui U.S.A. / <i>U.S.A.</i>	99,4	98,2	95,5	87,7	71,9	-16,9	-27,7	4,2	2,6
Africa / <i>Africa</i>	103,3	114,3	125,1	130,0	137,1	0,0	25,8	4,4	4,7
Oceania / <i>Oceania</i>	10,5	10,7	11,1	11,1	10,7	0,0	5,7	0,4	0,4
Totale / <i>Total</i>	2.352,2	2.605,5	2.796,8	2.820,1	3.004,6	-1,7	17,9	100,0	100,0

Fonte: Cembureau ed elaborazioni AITEC / Source: Cembureau and AITEC workups

MAGGIORI PRODUTTORI DI CEMENTO NEL MONDO DAL 2004 AL 2009
MAJOR WORLD CEMENT PRODUCER FROM 2004 THROUGH 2009

	2004	2005	2006	2007	2008	2009	2009 2008	2009 2008
	Milioni di t / Millions of tonnes						Variazioni % / Change %	
Cina / <i>China</i>	967,8	1.079,6	1.253,5	1.377,8	1.395,3	1.637,1	1,3	17,3
India / <i>India</i>	136,9	146,8	162,0	172,9	186,1	193,1	7,6	3,8
USA / <i>USA</i>	97,4	99,4	98,2	95,5	86,5	71,9	-9,4	-16,9
Giappone / <i>Japan</i>	72,4	72,7	73,2	71,4	67,6	59,6	-5,4	-11,9
Turchia / <i>Turkey</i>	41,3	45,6	49,0	50,8	53,4	57,6	5,0	7,8
Iran / <i>Iran</i>	32,2	32,6	35,3	40,0	44,4	56,3	11,0	26,8
Brasile / <i>Brasile</i>	36,4	39,2	42,4	47,2	52,3	52,3	10,9	-0,1
Corea del Sud / <i>South Korea</i>	55,8	49,1	51,4	54,4	55,1	52,2	1,4	-5,3
Russia / <i>Russian Federation</i>	46,2	49,5	55,2	59,9	52,3	47,2	-12,7	-9,8
Indonesia / <i>Indonesia</i>	37,9	36,1	38,1	39,9	41,8	39,7	4,8	-5,1
Thailandia / <i>Thailand</i>	36,7	37,9	41,3	43,2	39,5	37,7	-8,5	-4,5
Messico / <i>Mexico</i>	33,2	36,7	39,2	39,9	38,9	37,1	-2,4	-4,7
Italia / <i>Italy</i>	46,1	46,4	47,9	47,5	43,0	36,3	-9,5	-15,6
Spagna / <i>Spain</i>	46,6	50,3	54,0	54,7	43,1	30,6	-21,3	-28,9
Germania / <i>Germany</i>	32,7	31,9	33,6	33,4	33,6	30,4	0,6	-9,4

Fonte: Cembureau ed elaborazioni AITEC / Source: Cembureau and AITEC workups



On the cover

MAXXI: National Museum of the Arts of the 20th Century - Rome, Italy
From the magazine: *L'Industria Italiana Del Cemento* no. 851, March 2009

Back of cover page

Special from the *L'Industria Italiana Del Cemento*
"Italian National Report-Research and Construction"

3rd cover page

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Interior

Photo taken from the archives of the magazine *L'Industria Italiana Del Cemento*

