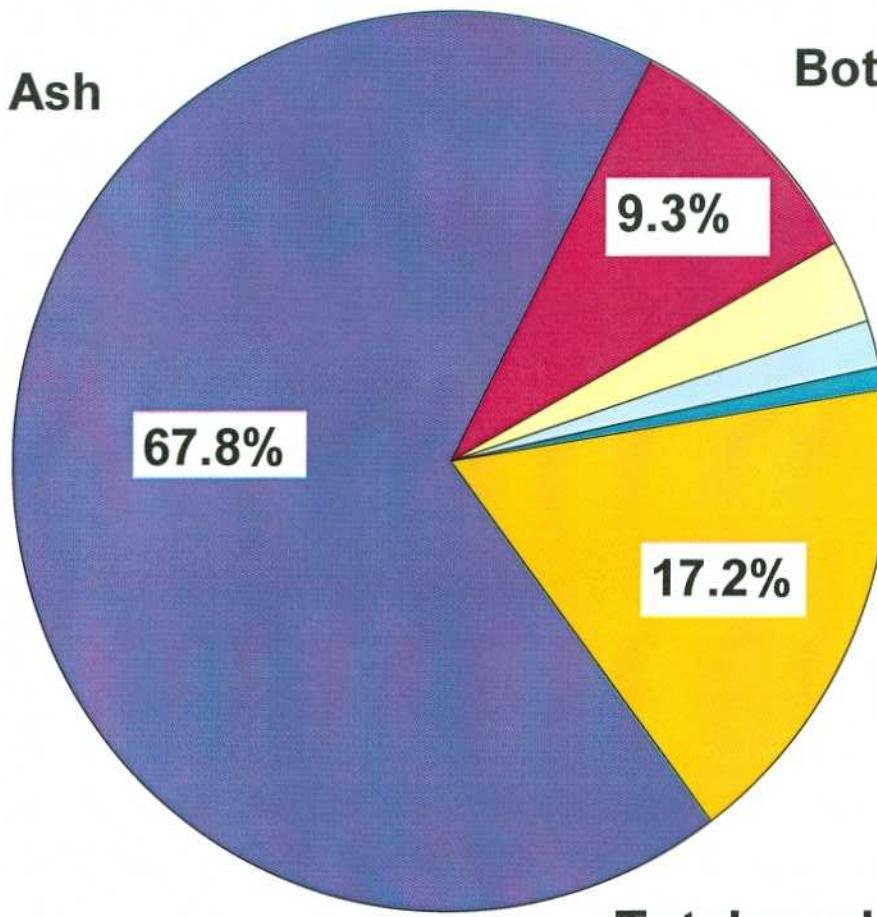


# **Production and Utilisation of CCPs in Europe (EU 15) in 2003**



**European Coal  
Combustion Products  
Association e.V.**

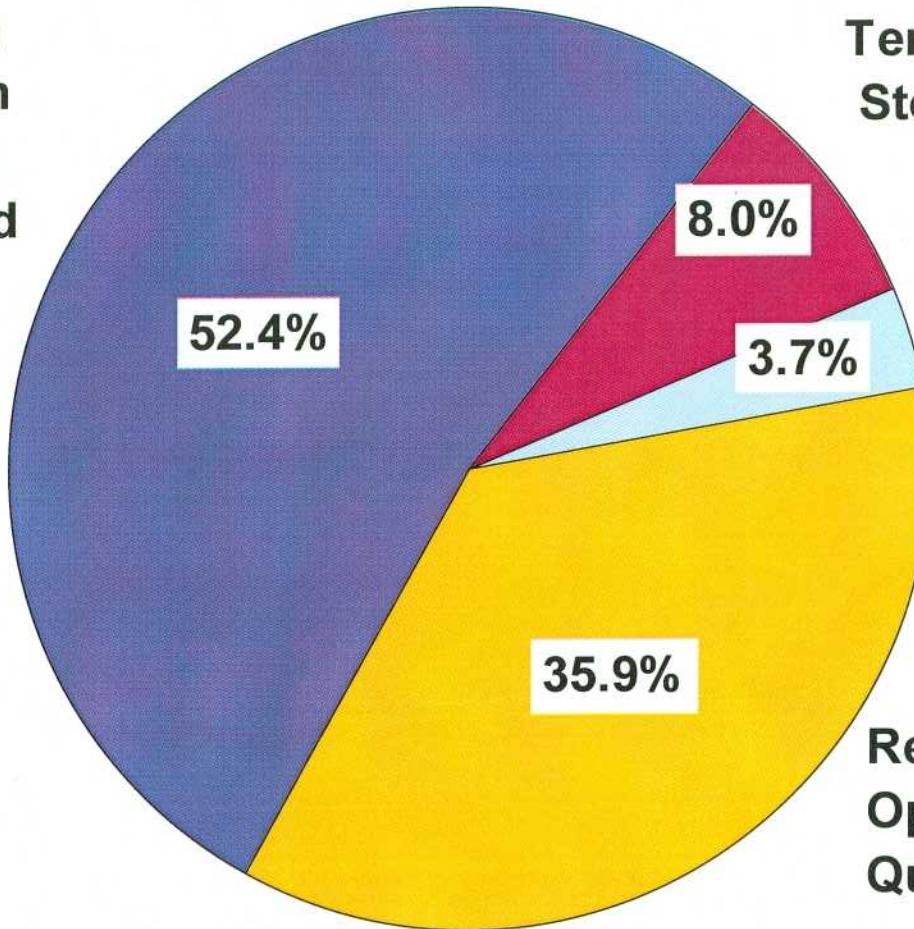


Total production: 65 million tonnes

Production of CCPs in Europe  
(EU 15) in 2003



**Utilisation in  
Construction  
Industry and  
Underground  
Mining**

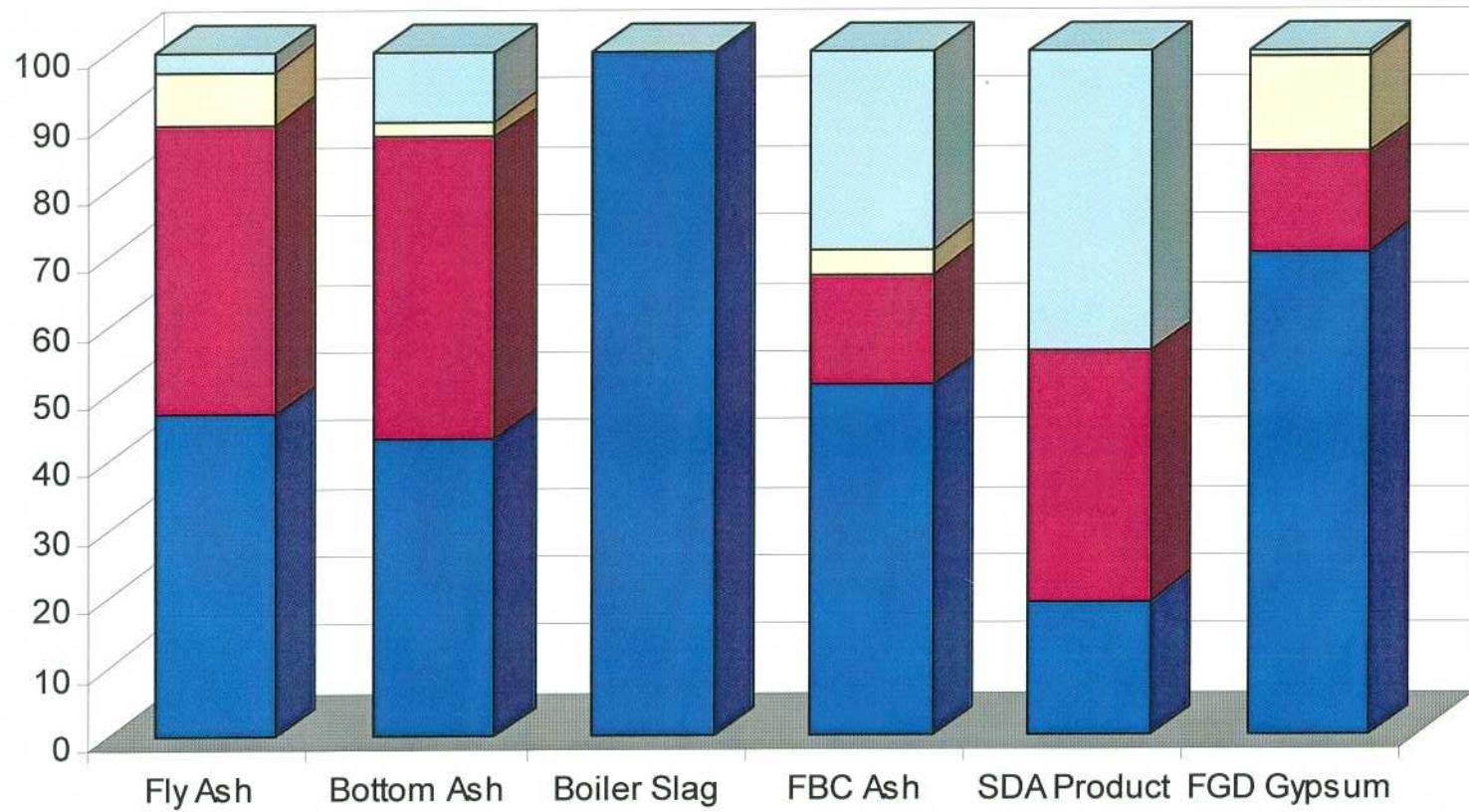


**Total production: 65 million tonnes**

**Utilisation and Disposal of CCPs  
in Europe (EU 15) in 2003**

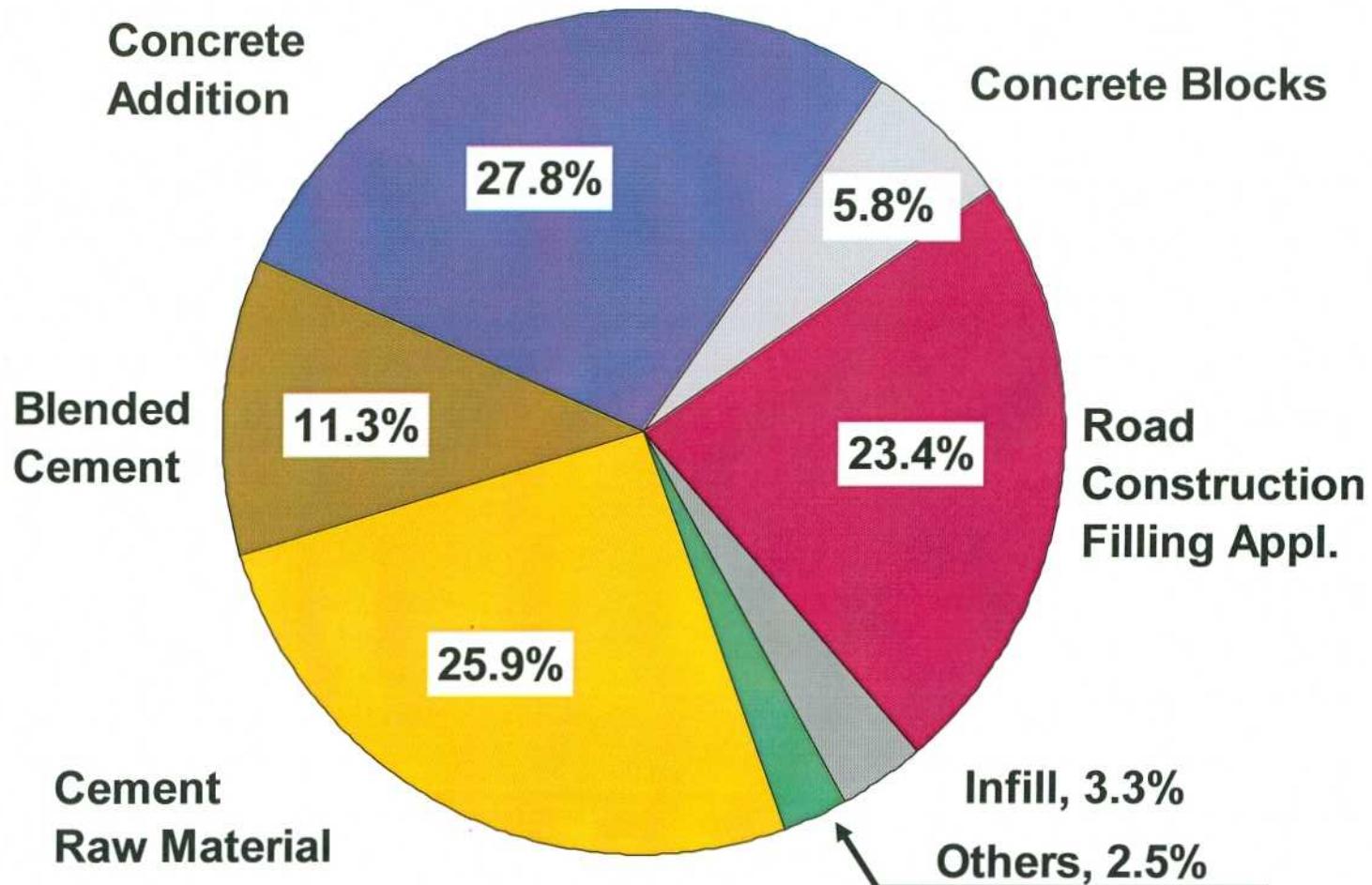


Disposal  
Temporary Stockpile      Restoration of Open Cast Mines, Quarries and Pits  
Utilisation in Construction Industry and Underground Mining

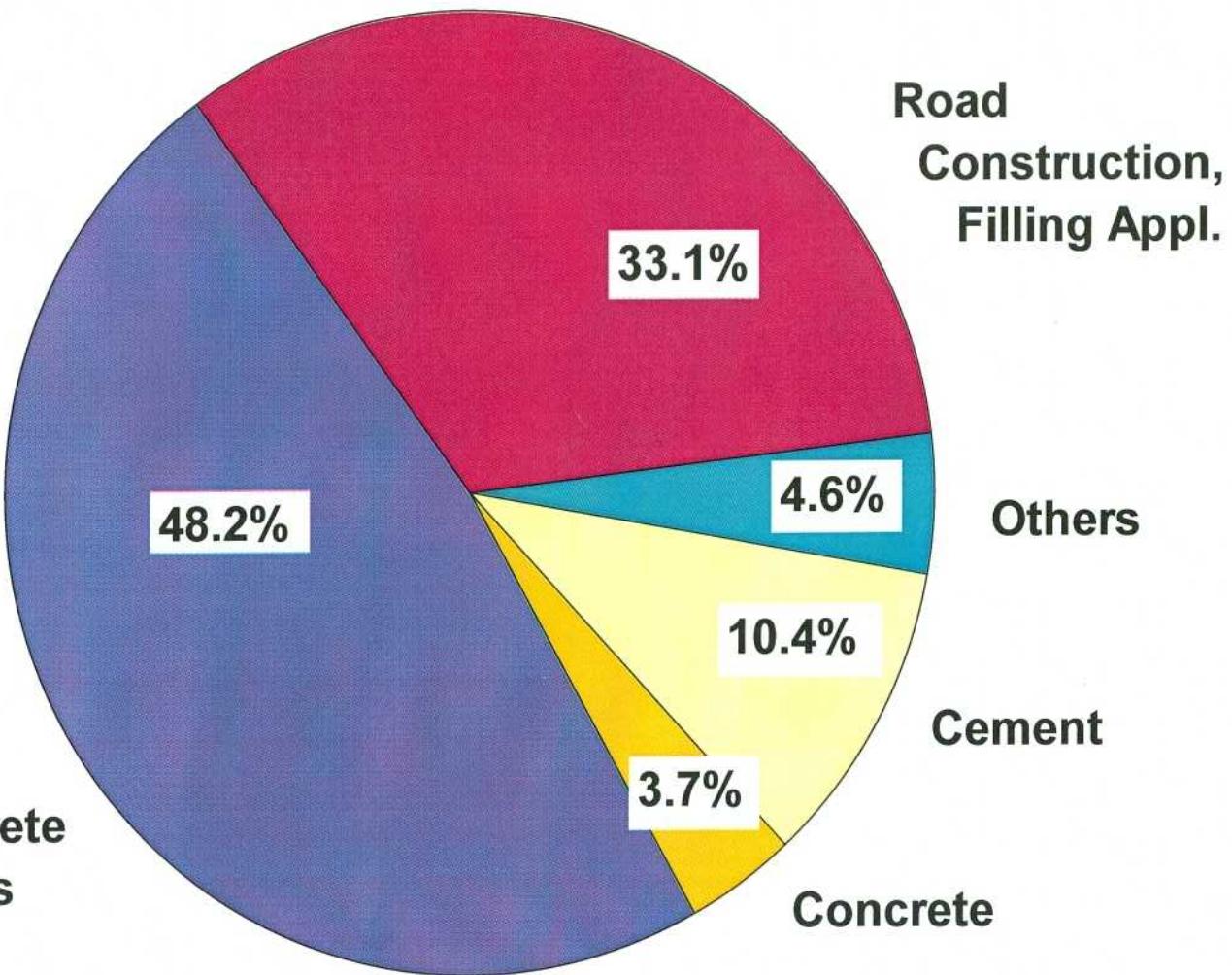


## Utilisation and Disposal of CCPs in Europe (EU 15) in 2003



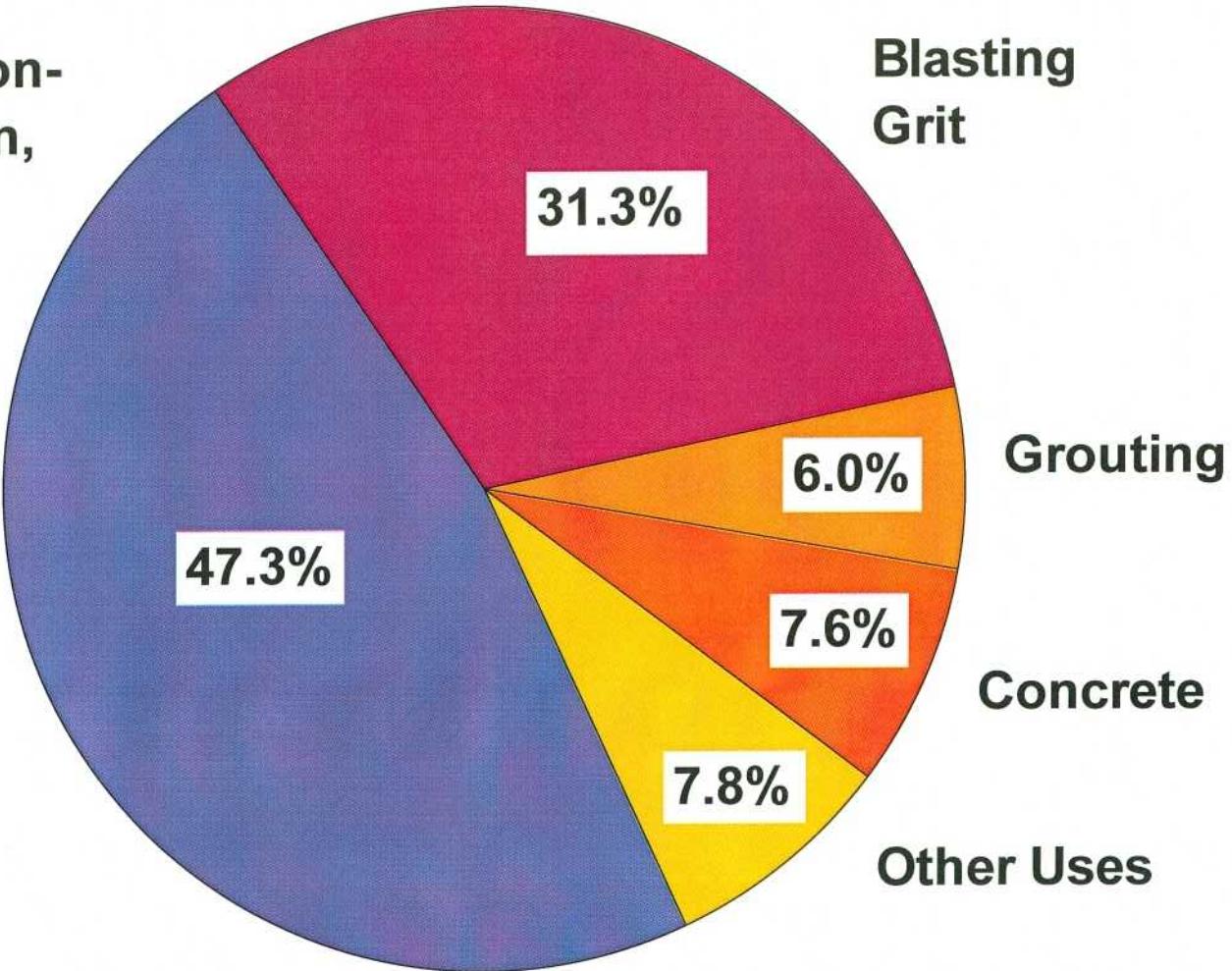


**Utilisation of Fly Ash in the Construction Industry  
and Underground Mining in Europe (EU 15) in 2003**  
Total Utilisation: 21.1 Million Tonnes

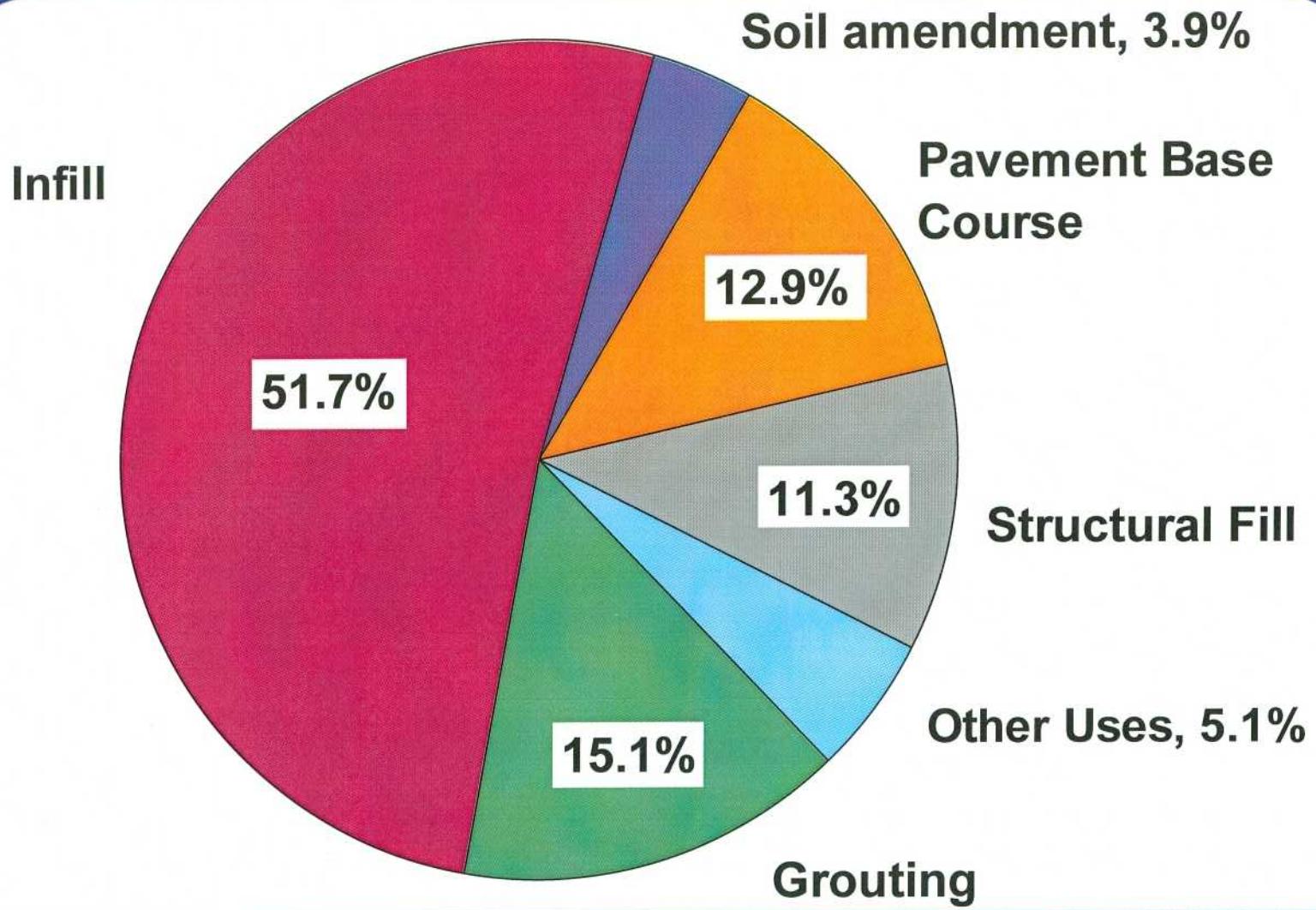


**Utilisation of Bottom Ash in the Construction Industry  
and Underground Mining in Europe (EU 15) in 2003**  
Total Utilisation: 2.7 Million Tonnes

Road Con-  
struction,  
Filling  
Appl.

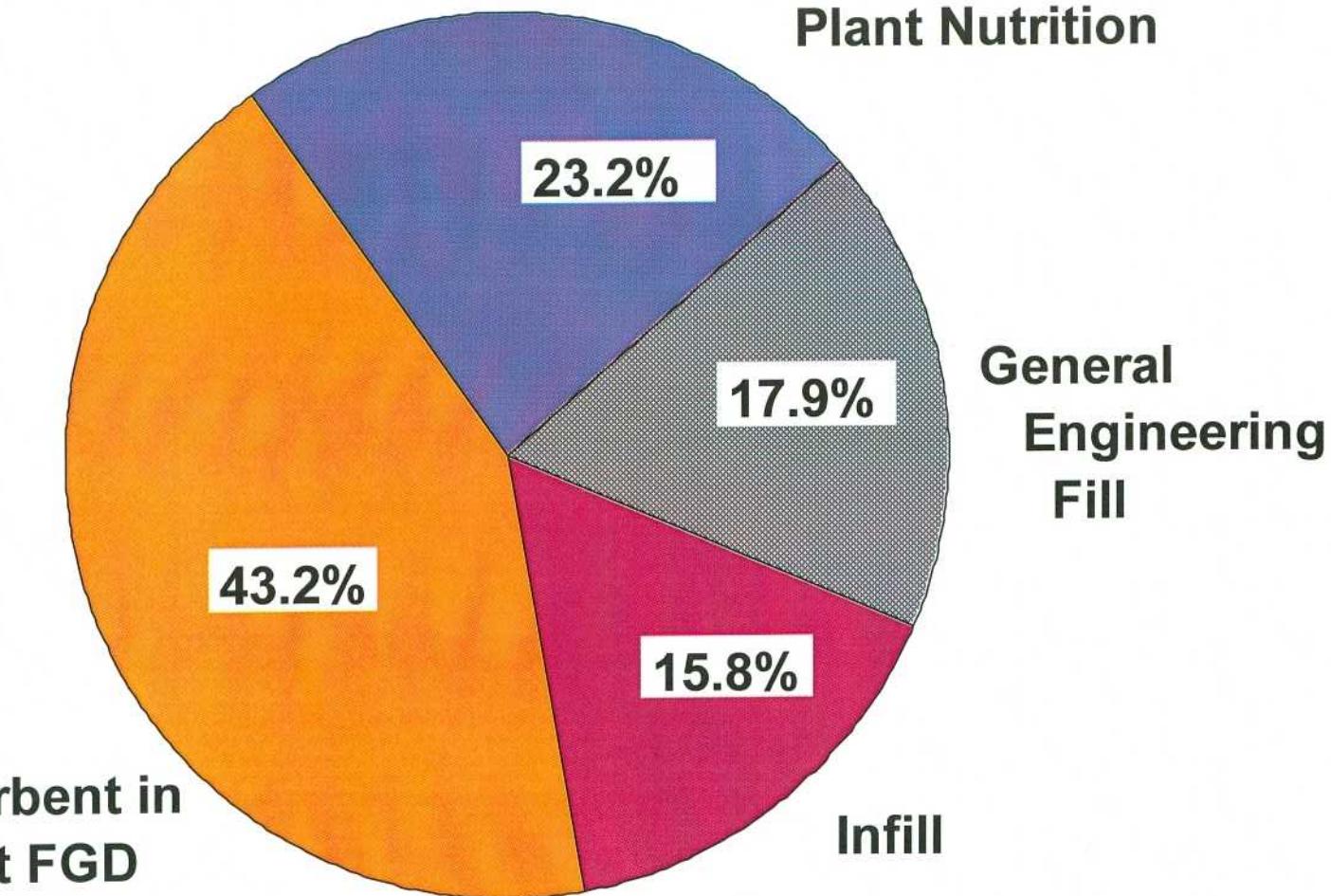


**Utilisation of Boiler Slag in the Construction Industry  
and as Blasting Grid in Europe (EU 15) in 2003**  
Total Utilisation: 2.1 Million Tonnes

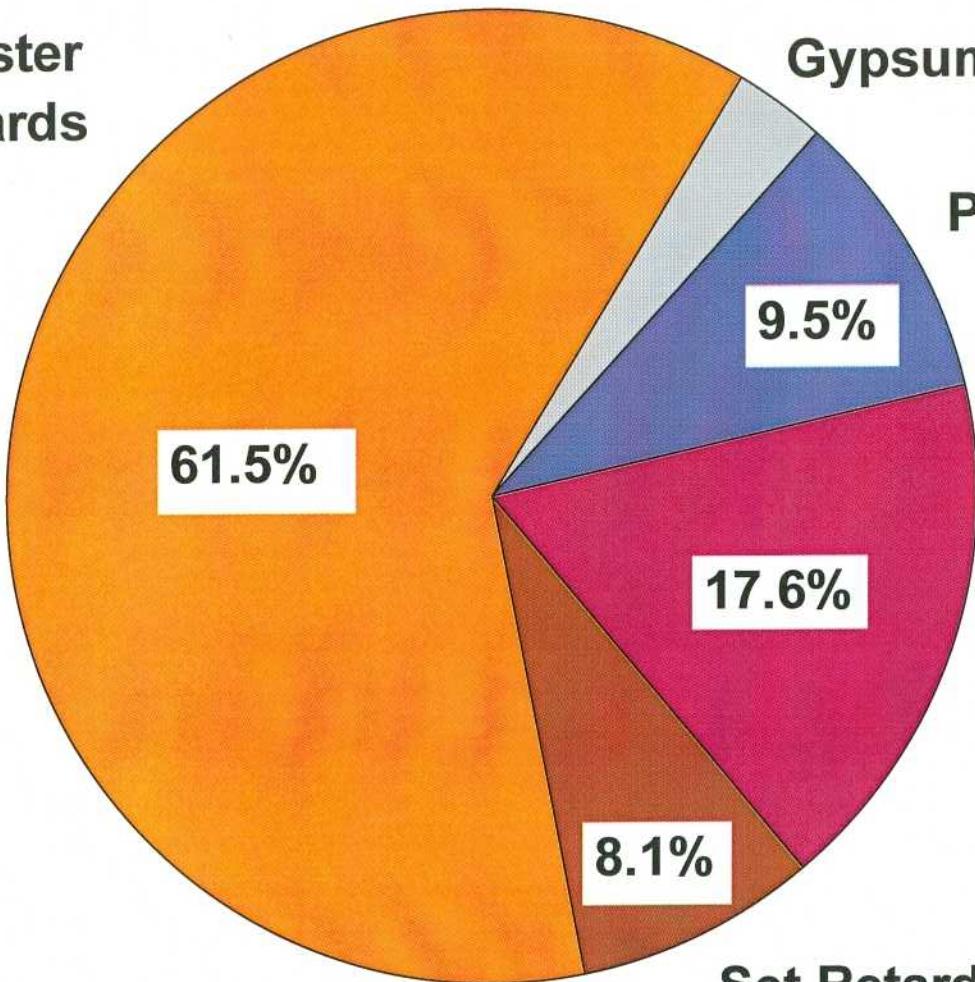


**Utilisation of FBC-Ash in the Construction Industry and  
Underground Mining in Europe (EU 15) in 2003**

Total Utilisation: 0.5 Million Tonnes



**Utilisation of SDA Product in the Construction Industry  
and Underground Mining in Europe (EU 15) in 2003**  
Total Utilisation: 0.1 Million Tonnes



**Utilisation of FGD Gypsum in the Construction  
Industry in Europe (EU 15) in 2003**  
Total Utilisation: 8.0 Million Tonnes

# Production and Utilisation of CCPs in 2003 in Europe (EU 15) [kilo tonnes (metric)]

	Fly Ash	Bottom Ash	Boiler Slag	FBC-Ash	Other	SDA-Product	FGD-Gypsum		Total	%
	1	2	3	4	5	6	7			
<b>CCP Production</b>		44.217	6.045	2.110	1.089	76	490	11.276		
Subtotal 1 - 5						53.537				
Subtotal 6 - 7								11.766		
Total 1 - 7								65.303		
<b>CCP Utilisation</b>										
Cement raw material	1	5.460	151					Cement raw material	5.611	8,4
Blended cement	2	2.377	125					Blended cement	2.502	3,8
Concrete addition	3	5.872	98	161				Concrete addition	6.131	9,2
Aerated concrete blocks	4	845	16					Aerated concrete blocks	861	1,3
Non-aerated concrete blocks	5	380	1.264		5			Non-aerated concrete blocks	1.649	2,5
Lightweight aggregate	6	93	0					Lightweight aggregate	93	0,1
Bricks + ceramics	7	133	23		16			Bricks + ceramics	172	0,3
Grouting	8	481		126	84			Grouting	691	1,0
Asphalt filler	9	158						Asphalt filler	158	0,2
Subgrade stabilisation	10	184	98		1			Subgrade stabilisation	283	0,4
Pavement base course	11	387	258	998	72			Pavement base course	1.715	2,6
General engineering fill	12	1.777	377		0	35	17	General engineering fill	2.206	3,3
Structural fill	13	1.911	145		63			Structural fill	2.119	3,2
Soil amendment	14	37	1		22			Soil amendment	60	0,1
Infill	15	689	94		288		15	Infill	1.086	1,6
Blasting grit	16	0		660				Blasting grit	660	1,0
Plant nutrition	17	3				22		Plant nutrition	25	0,0
Set retarder for cement	18						642	Set retarder for cement	642	1,0
Projection plaster	19						760	Projection plaster	760	1,1
Plaster boards	20						4.897	Plaster boards	4.897	7,4
Gypsum blocks	21						261	Gypsum blocks	261	0,4
Self levelling floor screeds	22						1.401	Self levelling floor screeds	1.401	2,1
Other uses	23	329	6	165	27	9	41	5 Other uses	582	0,9
Reclamation, Restoration	24	18.964	2.686	0	178		180	1.645 Reclamation, Restoration	23.653	35,6
Temporary stockpile	25	3.507	128	0	40			1.581 Temporary stockpile	5.256	7,9
Disposal	26	1.207	613	0	314	11	215	84 Disposal	2.444	3,7
<b>Total utilisation 1 - 23</b>	<b>27</b>	<b>21.116</b>	<b>2.656</b>	<b>2.110</b>	<b>557</b>	<b>65</b>	<b>95</b>	<b>7.966 Total utilisation 1 - 23</b>	<b>34.565</b>	<b>52,4</b>
Utilisation rate in %	28	47	44	100	51	86	19	71 Utilisation rate in %		
Average utilisation rate in %	29							52 Average utilisation rate in %		
Total utilisation 1 - 24	30	40.080	5.342	2.110	735	65	275	9.611 Total utilisation 1 - 24	58.218	88,3
Utilisation rate in %	31	89	88	100	67	86	56	85 Utilisation rate in %		
Average utilisation rate in %	32							88 Average utilisation rate in %		
<b>Total production 1-26</b>	<b>34</b>	<b>44.794</b>	<b>6.083</b>	<b>2.110</b>	<b>1.089</b>	<b>76</b>	<b>490</b>	<b>11.276 Total production 1-26</b>	<b>65.918</b>	<b>100,0</b>
Reuse of stockpiled CCPs	33	577	38	0	0	0	0	0 Reuse of stockpiled CCPs	615	0,9
<b>Total production 1-26 incl. reuse</b>	<b>34</b>	<b>45.371</b>	<b>6.121</b>	<b>2.110</b>	<b>1.089</b>	<b>76</b>	<b>490</b>	<b>11.276 Total production 1-26 incl. reuse</b>	<b>66.533</b>	<b>100,0</b>



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