

***Case No COMP/M.4719 -
HEIDELBERGCEMENT
/ HANSON***

Only the English text is available and authentic.

**REGULATION (EC) No 139/2004
MERGER PROCEDURE**

Article 6(2) NON-OPPOSITION
Date: 07/08/2007

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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 07/08/2007

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In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus [...]. Where possible the information omitted has been replaced by ranges of figures or a general description.

PUBLIC VERSION

MERGER PROCEDURE
ARTICLE 6(1)(b) DECISION

To the notifying party

Dear Sir/Madam,

**Subject: Case No COMP/M.4719 – Heidelberg Cement/ Hanson
Notification of 3 July 2007 pursuant to Article 4 of Council Regulation
No 139/2004¹**

1. On 03 July 2007, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation No 139/2004 by which the undertaking HeidelbergCement AG ("Heidelberg", Germany) acquires within the meaning of Article 3(1)(b) of the Council Regulation control of the whole of Hanson PLC ("Hanson", UK) by way of purchase of shares.
2. After examination of the notification, the Commission has concluded that the notified operation falls within the scope of Council Regulation (EEC) No 139/2004 and does not raise serious doubts as to its compatibility with the common market and with the EEA Agreement.

I. THE PARTIES

3. Heidelberg is a German-based company active in the production of cement and other building materials such as cement additives, aggregates, ready-mixed concrete, concrete products, paving material and mortar. Apart from Germany, Heidelberg is active in various other European countries, the United States, Canada and several African and Asian countries. Within the European Union, Heidelberg's principal geographic focus is Germany.

¹ OJ L 24, 29.1.2004 p. 1.

4. Hanson, headquartered in London, produces a wide variety of building materials, concentrating on aggregates, ready-mixed concrete, asphalt, concrete products, bricks and cement related products. Hanson is not active in the production of cement. Hanson has activities in the UK, in some countries in continental Europe, in the United States, Mexico, Canada, Israel, Australia and some Asian countries. Within the European Union, Hanson's main geographic focus is the United Kingdom.

II. THE OPERATION

5. The proposed acquisition is to be effected through Heidelberg's wholly owned subsidiary, Lehigh UK Limited, by way of a court-sanctioned Scheme of Arrangement. The recommended cash acquisition of Hanson PLC was announced on 15 May 2007 by Lehigh UK/Heidelberg AG. Through the operation, Heidelberg intends to indirectly acquire all the shares in Hanson.

III. COMMUNITY DIMENSION

6. The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5 billion (Heidelberg EUR 9.234 billion; Hanson EUR 6.644 billion). Each of them have a Community-wide turnover in excess of EUR 250 million (Heidelberg EUR [...]; Hanson EUR [...]), but they do not achieve more than two-thirds of their aggregate Community-wide turnover within one and the same Member State. The notified operation therefore has a Community dimension.

IV. RELEVANT PRODUCT AND GEOGRAPHIC MARKETS

7. Heidelberg is mainly active in cement production. Hanson is more focussed in aggregates extraction and ready-mix concrete production, mainly in the UK. With a view to facilitate understanding of the markets under scrutiny, an overview of the supply-chain relationships between the various building materials is presented hereafter, prior to an assessment market by market.
8. Cement and aggregates are the two main raw materials for concrete production. Concrete can come in many forms and from various production processes. However it essentially comes from mixing cement (mostly "grey") and aggregates (of various origins, like crushed rocks, sand or gravel). Concrete is either mixed on-site or, more commonly, due to lack of space on construction works and quality requirements, mixed in a dedicated plant and subsequently transported to the point of use in specific vehicles. On-site mixing is of limited economic importance, especially for professional users. Concrete produced with the latter method is called "ready-mixed concrete". It is a perishable product with a lifetime of few hours as it must be used in freshly-mixed condition. For well-standardized usages (such as roofing or paving), specific concrete products ("pre-cast concrete products") can be entirely manufactured in dedicated plants, i.e. not on-site. Cement and aggregates are also the main constituents of mortar, a product commonly used in masonry to join structural blocks such as stones, bricks or other construction materials. Aggregates are also used for asphalt production.

A- RELEVANT PRODUCT MARKETS

Aggregates

9. The Commission has in its most previous decisions considered aggregates as constituting a single product market, including crushed rock, gravel and sand². An overwhelming majority of the respondents to the market investigation carried by the Commission agreed with a single product market covering all types of aggregates. A further segmentation has been considered in other Commission's decisions: (i) between primary aggregates (crushed rock, gravel and sand) and secondary aggregates (colliery and china clay waste, slate, power station ash, slags and demolition/construction waste)³, (ii) between sand and gravel on the one hand and crushed rock on the other hand and (iii) between land won and marine-dredged aggregates⁴. Nevertheless, the exact market definition can be left open in this case since the proposed transaction does not give rise competition concerns under any alternative product market definition⁵.

Grey cement

10. Cement may have various compositions but they all derive from a single intermediate product called clinker. Clinker is produced by firing in a rotary kiln a mixture of crushed limestone and clayey raw material at approximately 1450°C. Clinker is then ground or milled with gypsum or other additives like "fly ash" or "blast furnace slag" (see below) into a fine powder to obtain cement.
11. There are two main types of cement: white cement and grey cement. Only grey cement is relevant as regards this case.
12. The parties have proposed to consider a product market for grey cement, in line with previous Commission's decisions⁶. The market investigation has confirmed the existence of such a market in continental Europe, the situation in the United Kingdom being specific (see below).

Cement additives and "cementitious" products – GGBS in the United Kingdom

13. Cement varieties are achieved by adding further substances (cement additives) to the cement clinker during the cement production process, in order to achieve certain cement characteristics. The main cement additives are: fly ash (a by-product of coal combustion in electricity generation) and ground granulated blast furnace slag (GGBS - made from granulated blast furnace slag or GBS, obtained by quenching molten iron

² COMP/M.3415 CRH/SEMAPA/Secil JV; COMPT/M.3259 – CRH/CVC/Cementbouw; COMP/M.3141 – Cementbouw/ENCI/JV

³ COMP/M.1779 – Anglo American/Tarmac ; COMP/M.1827-Hanson/Pioneer

⁴ COMP/M.2596 –RMC/UMA/JV

⁵ When considering the distinction primary / secondary aggregates, the parties' activities only overlap on a potential product market for primary aggregates since they do not produce secondary aggregates. Therefore for the purpose of this decision only primary aggregates will be considered.

⁶ COMP/M.2317 Lafarge/Blue Circle II; COMP/M.3572 CEMEX/RMC, COMP/M.3415 CRG/SEMAPA/Secil JV.

blast furnace slag in water or steam, a process called “granulation”). In previous decisions, the Commission has left open the question as to whether fly ash constitutes a separate product market⁷.

14. Due to regulatory differences as well as to local custom and preferences, in some countries, and in particular in the UK, producers of ready-mixed concrete or concrete products usually mix pure cement with fly ash or GGBS, or even partially substitute cement by these products, at their own site ("in house") in the concrete production process. The parties estimate that ready-mixed concrete producers who do not use either GGBS or fly ash represent less than [10-20]% in volume of the ready-mixed concrete market in the UK.
15. Hanson has a strong position in GGBS as a result of the recent acquisition of Civil & Marine in March 2006.
16. As a consequence, the question has been raised of the existence, in the UK, of a specific product market for GGBS, to be distinguished from other cementitious products.
17. Some elements sustain that a market for GGBS exists, while others, on the contrary, tend to dismiss the existence of such a market.
18. On the one hand, the parties have submitted - and this statement has been confirmed by the market investigation - that although GGBS can somehow be used as a substitute to cement (i) such substitution cannot occur completely⁸ for practical, commercial and standard reasons relating to the European cement standard EN 197; (ii) GGBS price is a little lower than that of cement, to an extent that the parties have estimated on average at no more than [10-20]% in the UK; (iii) the proportion of GGBS used as a substitute for cement modifies some characteristics of concrete such as the hardness, or, as submitted by a respondent to the market investigation, the colour of the final product).
19. On the other hand, the market investigation has confirmed that concrete producers could easily switch to cementitious products other than GGBS (fly ash or grey cement), within a short period of time and through little additional costs. Switching from one cementitious product to another would be all the more foreseeable as concrete producers' methods in the UK are specific to continental concrete producers in so far as in house blending is a common habit.
20. Overall, the use of GGBS as an additive to cement varies from a concrete producer to another, but a vast majority of the respondents to the market investigation agreed with a product market including at least all cement additives (GGBS and fly ash). The exact market definition can however be left open in this case as in all alternative market definitions considered effective competition would not be significantly impeded in the EEA or in any substantial part of it.

⁷ COMP/M.2465 CVC/Amstelland, para 11-13; COMP/M.3415 CRH/SEMAPA/SECIL/JV, para 14.

⁸ The parties estimate that while fly ash may be a substitute for cement up to a 30% ratio, this proportion may reach a 80% for GGBS

Ready-mixed concrete

21. Ready-mixed concrete is produced by mixing cement, aggregates, water, and certain additives. It is used as a basic material for on-site moulded concrete constructions. In previous decisions, the Commission has considered ready-mixed concrete as a clearly distinguished product market particularly due to its short life-time⁹. The market investigation has confirmed that such market definition should not be modified.

Mortar, pre-cast concrete products and pavings

22. The production of these three building materials requires cement and aggregates as inputs.
23. Mortar is a material used in masonry for a variety of applications, mainly to fill the gaps between blocks in wall constructions. Mortar can be made from different basic ingredients such as gypsum, lime or cement. In previous decisions the Commission has left open the question of narrower product markets such as (i) dry mortar/wet mortar or (ii) mortars according to the location of mixture (factory-mixed mortar, pre-batched but site-mixed mortar, mortar batched and mixed on site)¹⁰.
24. Pre-cast concrete products are extremely diverse and comprise ready-made pillars, beams, joists, road barriers, containers, railway sleepers and blocks for house construction. In previous decisions¹¹, the Commission has considered pre cast concrete products as a whole downstream market for aggregates and grey cement.
25. Pavings are blocs used for surfacing paths and roads. In previous decisions, the Commission has considered the possibility to assess separate markets for pavings blocs made of concrete and paving blocks made of clay.
26. The exact product market definitions can nonetheless be left open as the competitive assessment of the case at hand would not change regardless of the precise definitions.

B- RELEVANT GEOGRAPHIC MARKETS

Aggregates

27. The Commission has generally considered local markets for aggregates, with a radius of between 50 km¹² and 80 km from the production site¹³. However, in northern Germany and parts of Belgium and the Netherlands, wider radiuses have been assumed

⁹ COMP/M.3572 CEMEX/RMC, para 12.

¹⁰ COMP/M.3572 CEMEX/RMC, para 13.

¹¹ COMP/M.1779 Anglo-American/Tarmac, COMP/M.2317 Lafarge/Blue Circle II, COMP/M.3713 Holcim/Aggregates Industries

¹² COMP/M.3713 Holcim/Aggregate Industries, para 8.

¹³ COMP/M.1827 Hanson/Pioneer, COMP/M.3141 Cementbouw/ENCI/JV. Primary aggregates comprise crushed rock, gravel and sand taken directly from the location of its natural origin, such as quarries or gravel and sand deposits, whereas secondary aggregates combine waste and recycled aggregate products.

by the Commission in the past¹⁴. For the Netherlands the market for the production of aggregates has been considered at least national¹⁵. The exact market definition can be left open in this case as in all alternative market definitions considered effective competition would not be significantly impeded in the EEA or any substantial part of it.

Grey cement

28. As to grey cement, the Commission's found in previous cases that the geographic market is at least national¹⁶. The market investigation has however confirmed that cement is being traded across Europe, thus making room for wider geographic markets. In the present case the exact market definition can however be left open since regardless of the alternative market definitions considered, effective competition would not be significantly impeded in the EEA or any substantial part of it.

Ready-mixed concrete

29. As to ready-mixed concrete, the Commission found in previous cases that the geographic market is local, determined by a radius of around 25-40 km around the production site¹⁷. The market investigation has confirmed the existence of such geographic markets, with varying delivery area radiuses depending on the local traffic conditions. In fact, logically, the true parameter is the time from the ready-mixed concrete plant to the customer which can translate into different distances depending on whether the area is urbanized or not or on the fluidity of traffic.
30. However as to the Netherlands, the Commission considered that the whole of the Netherlands was the appropriate geographic market¹⁸ although the exact geographic market definition was left open. The same approach can be retained in this case since, regardless of the alternative market definitions considered, effective competition would not be significantly impeded in the EEA or any substantial part of it.

Cement additives and "cementitious" products

31. The Commission has in former decisions considered national markets for fly ash, GGBS and a wider cement additives market¹⁹. The parties submit that the market for cement additives and GGBS may be wider than national, considering the increasing cross-border trade, in particular the growing imports of GGBS into the UK.. This extent has been supported by the market investigation that has confirmed that European continental cement, fly ash and GGBS exporters exert a price pressure as

¹⁴ COMP/M.4298 Aggregate Industries/Foster Yeoman; COMP/M. 1827 Hanson/Pioneer; COMP/M. 1779 Anglo-American/Tarmac; COMP/M. 2317 Lafarge/Blue Circle, para. 10.

¹⁵ COMP/M.3141 Cementbouw/ENCI/JV, para 12.

¹⁶ COMP/M.2317 Lafarge/Blue Circle II, para 8/9; COMP/M.3572 CEMEX/RMC, para 10/11; COMP/M.3415 CRG/SEMAPA/Secil JV, para 9.

¹⁷ COMP/M.3572 CEMEX/RMC, para 22.

¹⁸ COMP/M.3141 Cementbouw/ENCI/JV, para 13.

¹⁹ COMP/M.3259 CRH/CVC/Cementbouw, COMP/M.3415 CRH/ SEMAPA/SECIL/JV

regards the UK. In any event, the exact market definition can be left open in this case since, regardless of the alternative market definitions considered, effective competition would not be significantly impeded in the EEA or any substantial part of it.

Mortar, pre-cast concrete products and pavings

32. As regards mortar, the Commission has in previous decisions considered the existence of local/regional markets, with a 120 km reference²⁰.
33. As regards pre cast products the Commission has in previous decisions considered national markets, but also addressed possible regional markets²¹.
34. As regards pavings, the Commission has left the exact definition open, although considering a national market for Netherlands²².
35. The exact geographic market definitions can nonetheless be left open as the competitive assessment of the case at hand would not change regardless of the precise definitions.

C. COMPETITIVE ASSESSMENT

36. The proposed concentration gives rise to (i) horizontally affected markets in Belgium (aggregates and ready-mixed concrete), Czech Republic (aggregates), the Netherlands (ready-mixed concrete) and the UK (aggregates and cement additives/cementitious products) and (ii) vertically affected markets in Belgium (grey cement and ready-mixed concrete), the Netherlands (aggregates and ready-mixed concrete; grey cement and ready-mixed concrete) and the UK (cement additives/cementitious products and ready-mixed concrete; grey cement and ready-mixed concrete/pre-cast concrete products/concrete pavings/mortar).

A. BELGIUM

Horizontal overlaps

(i) Aggregates

37. Both parties produce and sell aggregates in Belgium. Hanson concentrates on the Belgium coast, whereas Heidelberg's production sites are situated in the centre of Belgium. However, even under the narrowest market definitions, the merged entity will still face substantial competition given the highly fragmented nature of the market with a large number of competitors.
38. On a market for aggregates at national level, the parties' combined market share amounts to [15-25]% (Heidelberg [10-20]%, Hanson [0-5]%), facing strong competition from a large number of competitors such as CCB ([0-10]%), Holcim ([0-

²⁰ COMP/M.1779 . Anglo American/Tarmac

²¹ COMP/M.3713 Holcim/Aggregates industries

²² COM/M.3267 CRH/Cementbouw

10]%) or Hülskens ([0-10]%) and many other representing around [60-70]% of the market. If a narrower market for gravel and sand was to be considered (Hanson does not sell crushed rocks in Belgium), the parties' combined market share would be of [10-20]% ([0-10]% Heidelberg, [5-15]% Hanson), competing with NHM ([5-15]%), Hülskens ([5-15]%), LBU ([5-15]%) and others with a combined share above [45-55]%).

39. If narrower geographic market definitions were to be considered (with a radius of 50-80 km), there would be no overlap and, in any case, no substantial part of the common market would be affected.
40. The above assessment applies when considering narrower product markets (gravel and sand, crushed rock), since the parties activities only overlap on a potential market for gravel and sand, on which their combined market share is lower ([10-20]%) than that that they have on an overall market for aggregates. If a distinction between land-won and marine-dredged aggregates is made, there would not be overlap since Hanson is only active in marine-dredged aggregates while Heidelberg is only active in land-won aggregates.
41. The vast majority of the respondents to the market investigation have confirmed that the transaction is not likely to give rise to competition concerns in this highly fragmented market.

(ii) Ready-mixed concrete

42. Both parties produce and sell ready-mixed concrete in Belgium. Hanson operates three plants on the Western coast (Oostende, Zeebrugge and Bruges); Heidelberg has 30 plants disseminated all over Belgium.
43. No matter the geographic definition, the new entity's market share will remain limited. At national level, the parties' combined market share would be of [15-25]% ([10-20]% Heidelberg, [0-5]% Hanson). The new entity will remain under the pressure of other suppliers such as Holcim ([5-15]%), Ready Beton ([5-15]%) or CCB ([0-10]%).
44. Assuming a narrower geographic market definition, in the Oostende, Zeebrugge and Bruges region (40 km radius)²³, the parties' combined market share is of [15-25]% (Hanson [10-20]%, Heidelberg [5-15]%). The new entity will have to compete with Ready Beton ([0-10]% market share), CCB ([0-10]%) or Vandenbraembussche ([0-10]%). In any case, if local markets are considered, no substantial part of the common market would be affected.
45. The market will therefore remain highly fragmented, with small competitors representing a combined market share of more than [50-60]%. In addition, the vast majority of the respondents to the market investigation expressed no concern as regards this operation.

²³ The areas around Oostende, Zeebrugge and Bruges overlap to a large extent, so that for the purposes of this assessment they are considered as one single local market.

Vertical relationships

46. The proposed transaction gives rise to vertically affected markets only between grey cement and ready-mixed concrete²⁴.
47. Heidelberg is the major producer of grey cement in Belgium with a [30-40]% market share, followed by Holcim ([25-35]%) and Italcementi ([10-20]%). Furthermore, the parties have a combined market share in the downstream market for ready mixed concrete of around [15-25]% regardless of the geographic market definition. However, any risk of input foreclosure as a result of this transaction is to be dismissed.
48. Hanson is currently buying nearly [75-85]% of its cement from Heidelberg and the transaction would thus not significantly alter the current sales pattern of grey cement if Hanson were to source all its cement needs from Heidelberg post merger. Moreover, Hanson represents no more than [0-10]% of the total demand for cement in Belgium. Therefore, the new entity would not have the incentives to undertake any input foreclosure strategy. A foreclosure strategy would lead to a reduction of Heidelberg cement's current sales to a large number of ready-mixed concrete producers, giving rise to a loss of profits which would be hardly compensated by a mere increase of internal consumption of cement of [0-10]%²⁵ via Hanson. This would therefore lead Heidelberg to lower its profits
49. In addition, should Heidelberg decide to implement such an input foreclosure strategy, the ready-mixed concrete producers could switch to other suppliers such as Holcim ([25-35]% market share), Italcementi ([10-20]%) or VVM ([0-10]%). The competitive pressure being exerted by other national and external competitors is corroborated by the fact that total cement production in Belgium (7.3 million t. in 2005) exceeds national demand by more than 30% (5.5 million t.), and, in addition, there are imports (around 1.3 million t.).

B. CZECH REPUBLIC

Horizontal overlaps

Aggregates

50. Both parties produce and sell aggregates in Czech Republic. Hanson operates four quarries located in a narrow zone beginning east of Prague and stretching south to the Austrian border. Heidelberg is mainly present at the eastern part of the country. Overall, the horizontal overlaps are very limited, no matter the product and geographic market definitions.

²⁴ Although the notified concentration gives rise to vertical relationships between aggregates and ready-mixed concrete, the parties combined market shares are well below 25% on these markets, whatever the geographic market definition adopted (aggregates: [15-25]% in Belgium and [10-20]% in the Bruges region which is the only narrower geographic market where the proposed transaction gives rise to vertical relationships; ready-mixed concrete: about [15-25]% in Belgium and in the Bruges region).

²⁵ Since Hanson is currently purchasing [75-85]% of its cement needs from Heidelberg, and it accounts for [0-10]% of the cement demand, the maximum amount of cement which may be switched from other cement producers to Heidelberg is [0-5]%.

51. On an overall market for aggregates, the parties' market share would amount to [10-20]% (Heidelberg [10-20]%, Hanson [0-5]%). Although the major player, the new entity will have to face competition on a very fragmented market from other strong competitors such as Tarmac ([5-15]%), Asamer ([5-15]%) or Kamenolomy ([5-15]%).
52. The analysis of the new entities' position on narrower products markets would not change the competition assessment knowing that (i) there would be no affected market on a national market for gravel and sand (ii) and the new entity would have a [15-25]% combined market share on a national market for crushed rock, with sustained competition (Tarmac [10-20]%, Kamenolomy [10-20]% and Asamer [5-15]%).
53. Even if narrower geographic markets were to be considered, the operation would not raise competition concerns. On an 80 km radius market for aggregates around Hanson sites, the new entity would have a [10-20]% market share ([0-10]% Heidelberg, [0-10]% Hanson), with competition from Tarmac ([10-20]%), Kamen a Pisek ([0-10]%) or Asamer ([5-15]%). If gravel and sand are considered, there would be no affected market. Lastly, considering a market for crushed rocks, the new entity, with an [15-25]% market share ([0-10]% Heidelberg, [5-15]% Hanson) would still have to compete with other strong competitors such as Tarmac ([15-25]%) or Kamen a Pisek ([10-20]%).
54. On a 50 km radius geographic market around Hanson sites, and despite the fact that the market test confirmed that the relevant radius was between 60 and 100 km, the new entities' market share would be (i) on aggregates of [15-25]% (Heidelberg [5-15]%, Hanson [10-20]%), (ii) on gravel and sand of [10-20]% ([0-10]% Heidelberg, [5-15]% Hanson), on crushed rocks of [20-30]% (Heidelberg [5-15]%, Hanson [10-20]%). However, on each of these potential markets, the new entity would still face competition on aggregates (Kamen Zbraslav [10-20]%, Kamen a Pisek [5-15]%, Tarmac [5-15]%), on gravel and sand (Kamen Zbraslav [15-25]%, Frantisek Jampilek [5-15]%, Tarmac [5-15]%), and on crushed rocks (Kamen a Pisek [15-25]%, Kamen Zbraslav [5-15]%). If a distinction between land-won and marine-dredged aggregates is made, the assessment would be the same since in Czech Republic all aggregates are land-won. In any case, if local markets are considered, no substantial part of the common market would be affected.
55. Overall, the vast majority of the respondents to the market investigation has confirmed that the transaction is not likely to give rise to competition concerns on these fragmented markets.

Vertical relationships

56. Heidelberg acquires a producer of aggregates in a region where it is already present as a ready-mixed concrete producer. However the proposed transaction leads to vertically affected markets in only the potential product market for crushed rock located within a 50/80 km radius around Hanson's production sites. In this geographic area the parties have a combined market share of [20-30]% on the market for crushed rock, whereas Heidelberg's market share in ready-mixed concrete is below 25%²⁶.

²⁶ As to ready-mixed concrete, Heidelberg has market shares of [15-25]% at national level and of [15-25]% within Hanson's area production sites.

57. Given the parties' market shares any risk of input or output foreclosure can be dismissed.
58. Indeed, if the parties were to undertake a foreclosure strategy, ready-mixed concrete producers could turn to other suppliers which, as stated in the previous section, would account for at least [75-85]% of the aggregates market, which in addition, according to the data provided by the parties, could increase their production by [10-25]%. Furthermore, Heidelberg's demand for aggregates is very limited as regards the overall demand in this region and therefore the incentive for Heidelberg to internalise Hanson aggregates production while at the same time engaging into an input foreclosure strategy vis à vis its ready-mixed competitors would not be profitable.
59. Overall, the majority of the respondents to the market investigation has confirmed that the transaction is not likely to give rise to competition concerns. The market investigation has also confirmed that the number of alternative suppliers for aggregates with significant spare capacity is high.

C. THE NETHERLANDS

Horizontal overlaps

(i) Ready-mixed concrete

60. Both parties produce and sell ready-mixed concrete in the Netherlands. Hanson operates three plants in Amsterdam, Rotterdam and Utrecht (the latter being a 50/50 joint venture with Dyckerhoff/Basal). Heidelberg, through its subsidiary Mebin B.V., operates 27 plants.
61. At national level, the Parties' combined market share would be [20-30]%, but with a very limited addition of market shares (Heidelberg [20-30]%, Hanson [0-5]%). The presence of a high number of other alternatives such as Cementbouw ([10-20]%), NCD/Basal ([10-20]%), Van Nieuwpoort ([0-10]%) and other players with an aggregate market share of around [35-45]% indicate that significant competition concerns are not likely to arise.
62. As regards the Amsterdam region, the new entity will get a [30-40]% market share ([20-30]% Heidelberg, [10-20]% Hanson). However, it would still face significant competition constraints, from Cementbouw Betonmortel ([20-30]%), Korrelbeton ([15-25]%), Albeton ([0-10]%) and Betoncentrale Haarlemmermeer ([0-10]%).
63. As regards the Rotterdam region, the new entity's market share will amount to [25-35]% ([20-30]% Heidelberg, [5-15]% Hanson). It will compete with other important producers such as NCD/Basal ([25-35]%), Betonmortelbedrijven Cementbouw ([10-20]%), Van Nieuwpoort ([5-15]%) or Holcim ([5-15]%).
64. As regards the region of Utrecht, the new entity will get a [25-35]% market share ([15-25]% Heidelberg, [5-15]% Hanson). It will however still have to compete with other ready-mixed concrete suppliers such as Dekker Van de Kamp ([20-30]%), Theo Pouw ([10-20]%), NCD/Basal ([5-15]%) or Oudenallen ([5-15]%).
65. Despite having a strong position in all the above three regions, the transaction is not likely to create competition concerns given the number of alternative credible suppliers in the market. In addition, the different business models in terms of vertical integration

(only Heidelberg produces cement in The Netherlands) and their asymmetry in terms of market shares renders the alignment of incentives to engage in a coordinated behaviour highly unlikely. In any case, if local markets are considered, no substantial part of the common market would be affected.

Vertical relationships

(i) Cement- Ready-mixed concrete

66. Heidelberg sells cement in the Netherlands. Hanson, as a producer of ready-mixed concrete, is a buyer of cement. However, although Heidelberg has a strong position on cement ([50-60]% on a national geographic market), any risk of input foreclosure as a result of this transaction can be dismissed.
67. Firstly, Hanson already buys [70-80]% ([...]tons out of [...] tons) of its cement requirements from Heidelberg. Consequently, the transaction will not significantly alter the sales pattern in the Netherlands.
68. Secondly, despite being the only seller of cement in the Netherlands with domestic production facilities, Heidelberg has to compete with other cement producers importing cement into the Netherlands from neighbouring countries. Already 50% of the total market volume of cement is imported by competitors such as Holcim (which has a [5-15]% national market share), Cemex ([5-15]%) and Dyckerhoff ([5-15]%). The new entity will remain constrained by this external pressure, particularly by the German exports: as an example, although exports from Germany accounted for around 6.2 million tons in 2004 and 2005 (of which 2.4/2.2 million went to the Netherlands), the parties estimate the remaining overcapacity of cement producers in the German regions Rhine/Ruhr at up to [2-4] million tons).
69. As a result, the new entity will not have the ability to undertake any input foreclosure strategy.
70. It will not have either the incentive to do so. Indeed, Heidelberg's and Hanson's cement requirements for their downstream activities account for around [< 1] million tons, while Heidelberg's sales to third parties account for [> 2] million tons. Cement sales being more profitable than ready-mixed concrete sales, the new entity would in no circumstance find it profitable to reduce its cement supplies in order to improve its sales in ready-mixed concrete. The majority of the market test respondents has confirmed that the new entity would not have the incentive to alter (on price or quality) supplies of cement, particularly to customers which are at the same time competitors on the ready-mixed concrete markets.

(ii) Aggregates- Ready-mixed concrete

71. The new entity will be present at the same time on the aggregates markets and on the ready-mixed concrete markets. However, any risk of input foreclosure can be dismissed. The parties have a limited combined market share of aggregates of [5-15]% in the Netherlands (narrower product or geographic market definition would even further reduce the market share. Hanson only sells gravel and sand in the North, while Heidelberg sells small amounts of imported crushed rocks and of sand and gravel. If a distinction between land-won and marine-dredged aggregates is made, also the combined market share would be limited since Hanson is only active in marine-dredged aggregates but with a market share not significantly above [5-15]% while

Heidelberg's share would be below [0-10]%). Moreover, as regards the share of demand for aggregates going to ready-mixed concrete producers, the parties, for their own production, have to rely on external suppliers, thus confirming the importance of external alternative suppliers.

72. A majority of the market respondents has not raised any concerns as regards a possible risk of vertical foreclosure as a result of this transaction.

D. UK

73. As it has been already explained in the section on product market definition, the UK is a market with certain characteristics that differentiate it from Continental Europe. Due to specific national regulations and customer preferences, concrete producers normally blend themselves grey cement and cement additives as opposed to Continental Europe where these components are normally blended upper in the value chain by cement suppliers.
74. In addition, given that cement additives and grey cement are partially substitutable and partially complementary products, the proposed transaction gives rise to a number of relationships between the various market players which are specific to the UK and need to be assessed in more detail.
75. Heidelberg is a cement producer in the UK and Hanson is the major producer of one cement additive (GGBS) which is also active in ready-mixed concrete. Therefore, apart from the assessment of the effects of the transaction as a result of the horizontal overlaps, the assessment of the vertical relationships will be focussed on two main possible anticompetitive effects raised by some respondents to the market investigation: (i) the possible input foreclosure as regards (a) cement producers (who may need cement additives) and (b) ready-mixed producers and other concrete products (who may need cement, aggregates and cement additives), and (ii) a possible link between the sales of cement and GGBS ("bundling" effect).

Horizontal overlaps

(i) Aggregates

76. In the UK, Heidelberg's activities are limited to imports, mainly of crushed rocks, from Norway. Its import terminals are located in the Eastern coast of the UK, mainly covering the region around Victoria Deep, Northfleet and Tilbury Docks. Hanson is present throughout the UK, producing crushed rock, sand and gravel.
77. At national level, the parties would have a combined market share of [15-25]%²⁷, being the overlap derived from Heidelberg's activities insignificant (Hanson [15-25]%, Heidelberg [< 5]%).
78. At local level, the parties' activities overlap only in Victoria Deep/Northfleet/Tilbury Docks region, where, if a delivery radius of 80 km is considered (in line with the results of the market investigation), they would have a combined market share of around [25-35]% the increment of market share resulting from the operation being very

²⁷ This figure takes into account 100% of the production of the joint venture jointly controlled by Hanson and Tarmac active in aggregates production, United Marine Aggregates.

limited (Heidelberg: [< 5]%, Hanson: [25-35]%). In any case, if local markets are considered, no substantial part of the common market would be affected.

79. Even if the product market were to be considered at a narrower level, the only overlap would be for crushed rocks/land-won aggregates, with similar levels of market shares.
80. The new entity will continue to face several significant competitors both at national and at regional level, such as Holcim: [15-25]%, Cemex: [10-20]%, Tarmac: [10-20]%²⁸, Brett: [5-15]% and Lafarge: [5-15]%. Moreover, around 30% of the supply of aggregates in the Victoria Deep/Northfleet/Tilbury Docks region is imported, either from other areas within the UK, from France or, as Heidelberg itself does, from Norway.
81. In addition, no respondent to the market investigations has raised concerns as a result of the combination of the parties' activities in aggregates.
82. The proposed concentration is therefore unlikely to give rise to competition concerns on the aggregates' market in the UK, regardless of the market definitions retained.

(ii) Cement additives

83. As to cement additives, the parties' activities overlap only on an overall product market comprising fly ash and GGBS²⁹. On this market they have a combined market share of [40-50]% but Heidelberg's market share is insignificant ([< 5]%). The proposed concentration is therefore unlikely to raise competition concerns on this market, regardless of the precise market definitions.
84. If GGBS were to be considered as a separate product market, the operation would not result in any horizontal overlap, as Heidelberg is absent of the market. It would not either result in the removal of a potential competitor for Hanson, the market investigation having not revealed any plan from Heidelberg to enter GGBS trade business.

(iii) Market for cementitious products

85. On a "hypothetical³⁰" market for "cementitious" products (which would include cement additives and grey cement), the Parties would have a combined market share of [25-35]% (Heidelberg: [15-25]%, Hanson: [5-15]%). There are at least 5 other significant domestic and international producers with cement or cement additives sites, some of which having significant market shares (Lafarge: [30-40]%, Cemex: [15-25]%, Buxton Lime Industries [0-10]%, Holcim [0-10]% and Titan [0-10]%). Post-merger, the market would therefore be characterised by the existence of two big players (Heidelberg and

²⁸ Includes 50% of United Marine Aggregates' sales, the joint venture between Hanson and Tarmac. Since Hanson's market share takes account of 100% of such joint venture, the addition of all market shares is slightly overestimated.

²⁹ Only Hanson produces GGBS whereas only Heidelberg produces (small) quantities of fly ash.

³⁰ This market is hypothetical and has been examined by the parties for the sake of completeness and thoroughness, in view of certain specific features of the relevant supply-chain in the UK, which differ to some extent from Continental Europe.

Lafarge) with similar market shares of around [25-40]% followed by a third one (Cemex) with around [15-25]% market share. Given that the remaining competitors are relatively small, it could be argued that the market structure may increase the risk of coordinated effects. The investigation of the Commission indicates however that this outcome is most unlikely, for the following reasons.

86. Firstly, it has to be taken into account that a cementitious market would comprise three main types of products (GGBS, fly ash and grey cement) which, despite being to certain extent substitutable, remain rather differentiated products. In this respect, the market investigation has confirmed³¹ the limitation in substitution in particular from grey cement towards GGBS and fly ash. For example, ready-mixed concrete containing substantial amount of GGBS have higher setting time, which can be a desirable property for some applications (bridge construction) but less desirable for some other usages (flooring). Fly ash gives the ready-mixed concrete a darker colour whereas the use of GGBS results in a lighter coloured concrete, which similarly can affect demand substitutability between fly ash and GGBS. Thus, concrete can be produced using cement exclusively, GGBS can partially substitute cement up to a maximum of 80% (in the UK) while fly ash can do it up to 30%. In addition, price differences are also to be taken into account, fly ash and GGBS being respectively around [60-70]% and [10-20]% cheaper than cement. It follows that reaching a common understanding of the terms of coordination appears to be highly unlikely given the lack of homogeneity in a cementitious market.
87. Secondly, prices are normally negotiated on a customer-by-customer basis and on individually agreed rebates, price lists are normally not used or, if they are, given the individual negotiations and rebates cannot be considered as a reliable source of price information. The lack of transparency is in addition enhanced by various proportions of cement, GGBS and fly ash that can be purchased, and at different prices, by the customers for the same final application.
88. Thirdly, any attempt to coordinate may be destabilised by the increasing constraint of imports, either by other competitors or by some customers. Currently there are 20 cement terminals in Great Britain allowing for the discharge of cement and cement additives, not only owned by the major players but also by those with smaller presence, such as Titan or Holcim or by independent undertakings or customers. According to the parties, over the last 9 years 11 new terminals have been set up in the UK. The capacity of all these import terminals account for around 6 million tonnes (representing around 35% of the cementitious market) and it is only used at about 25%.
89. In the light of the above, the proposed concentration is unlikely to lead to competition concerns, in particular in terms of coordinated effects.

Vertical relationships

(i) Input foreclosure: grey cement, aggregates and cement additives vs. ready-mixed concrete and other concrete products

³¹ The Commission has previously also confirmed the partial substitutability of these products in case M.3415 – CRH/SEMAPA/SECIL/JV.

Cement vs. ready-mixed concrete and other concrete products

90. Heidelberg produces and sells grey cement in the UK and has a market share of about [20-30]%. Although Hanson neither produces nor sells grey cement in the UK, it is active on the downstream markets for ready-mixed concrete ([15-25]%), pre-cast concrete products ([5-15]%), pavings ([0-10]%) and mortar (combined market share around [0-10]%).
91. As far as ready-mixed concrete is concerned, Hanson's market shares on regional markets remain below 20%, sourcing its cement requirements from a wide range of producers. It only sources [15-25]% of its demand from Heidelberg. However, should the new entity have the incentive to undertake an input foreclosure strategy, even if Heidelberg were to reserve its entire production to meet Hanson's cement demand, this would only represent [0.5-1.5] million t. out of Heidelberg's sales of [2-4] million t. As a consequence, Heidelberg would not have the incentive to restrict its output and to refuse to supply other ready-mixed concrete producers since they would be able to turn to alternative cement suppliers able to cover a substantial part of this new demand³². The main Heidelberg's competitors in the cement market which may be able to constrain such behaviour are Lafarge ([35-45]%), Cemex ([15-25]%), Buxton Lime Industries ([0-10]%) and Holcim ([0-10]%), currently a small player in the UK but a well known cement producer with strong presence in various Member States in Continental Europe. The new entity is therefore unlikely to adopt foreclosure behaviour as it would lead to a reduction of its profits.
92. As far as pre-cast concrete products, concrete pavings and mortar are concerned, only Hanson is active on these downstream markets, with a market share below 10% for each of them. As stated above, Hanson's total cement demand would represent around [35-45]% of Heidelberg's sales, and therefore, given that concrete products producers would have the possibility to source cement from alternative suppliers, it would be unlikely, and most probably also un-profitable, for the combined entity to adopt a foreclosure strategy.

Aggregates vs. ready-mixed concrete and other concrete products

93. These markets would not be vertically affected, except if the market for aggregates is considered as local in the Victoria Deep/Northfleet/Tilbury Docks region, where the Parties would have a combined market share of around [25-35]%. However, as stated above, the transaction gives rise to a very limited increment of market share in aggregates in this region (Heidelberg: [< 5]%, Hanson: [25-35]%). Given that Heidelberg is not present in the downstream markets, it is highly unlikely that Hanson's current incentives to supply concrete producers with aggregates will change as a result of this transaction.

Cement additives vs. ready-mixed concrete and other concrete products

Fly ash and GGBS considered as two separate product markets

³² According to the parties' estimate, the following producers have spare capacity: Lafarge (0.5 million tonnes), Cemex (1 million t.), Castle (1 million t.) and third party importers (between 0.5-1 million t.). Together, they would account for around 24% of the UK's cement market (estimate by the Parties to be around 12.5 million t.).

94. If fly ash and GGBS were to be considered as two separate markets, there would be no overlap on either market since Heidelberg is only active in fly ash whereas Hanson is only active in GGBS.
95. Regarding fly ash, the market would not be vertically affected since Heidelberg's market share is very small ($< 5\%$) and the Parties' market shares downstream in ready-mixed concrete and other concrete products are below 25%.
96. As regards GGBS, Hanson's market share is around $[80-90]\%$. Such a high market share may raise competition concerns since the merged entity may leverage its strong position to foreclose both (i) cement producers who may need GGBS either to use it internally in their own downstream activities (for example for ready-mixed concrete production) or to blend it with cement in order to sell the blend to final customers (although, as already explained, this is not usual in the UK), and (i) its downstream competitors in ready-mixed concrete/other concrete products non vertically integrated in cement production.
97. By raising the price of GGBS to downstream rivals, their incentives to increase the proportion of cement in their final products would also be increased. This would appear to increase the Parties' incentives to engage in an input foreclosure strategy, since the merged entity would be also a supplier of cement and the loss of sales of GGBS would be partially offset by increased sales of cement, thus mitigating the loss in the GGBS market.
98. However, the fact that the merger may marginally increase the incentives to engage in input foreclosure does not in itself justify that the transaction raises competition concerns, since the Parties need to have also the ability to engage in such behaviour. Indeed, the evidence gathered by the Commission indicates that the merged entity will not have either the incentive or the ability to foreclose its competitors, and, even if implemented, it is highly unlikely that such behaviour would have a significant impact on the final customers. The transaction therefore does not threaten to significantly impede effective competition.
99. Hanson's GGBS production of about $[1-3]$ million tonnes is partly consumed internally (< 1 million t.) and partly sold to third parties ($[1-3]$ million t.). Since Hanson is already competing with these third parties downstream in ready-mixed concrete/other concrete products, it is doubtful to what extent the current transaction may change Hanson's current incentives to continue supplying these undertakings.
100. Some concerns raised during the investigation by which Hanson would increase its captive use of GGBS, together with a possible reduction in the availability of blast furnace slag in the UK have to be dismissed. Hanson is already captively consuming GGBS at approximately $[80-100]\%$ of their maximum upper limit [...]. Any reduction of sales to third parties would thus result in loss of sales, not being compensated by an increase in Hanson's internal use of GGBS. Furthermore, even if Hanson were to have plans to expand its current downstream activities and even if the availability of blast furnace slag were to be lower, these aspects are not specific to this merger.
101. Hanson's incentives may be likely to change only if, post-transaction, the Parties' combined activities in the downstream activities were to be significantly increased. However, Heidelberg is not present at all in ready-mixed concrete/other concrete products in the UK [...].

102. Moreover, most of Hanson's GGBS sales ([75-85]%) are made to ready-mixed producers, and most of it ([80-90]%) is supplied to the following cement producers: Tarmac, Lafarge, Holcim and Cemex, which together account for around [50-70]% of the ready-mixed concrete market. The rest of the GGBS is supplied to other undertakings not integrated upstream in cement production.
103. As regards the cement producers currently purchasing GGBS from Hanson, it has to be taken into account that most of them could turn to alternative supply sources. For example, Cemex imports GGBS from Germany for its own use in the UK. In fact, over the last three years it has increased its share of GGBS production (including imports) in the UK from [< 5]% in 2004 up to around [5-15]% in 2006.
104. Overall, the parties estimate that GGBS imports, excluding Hanson', have increased from virtually zero in 2001 to approximately [10-20]% in 2006. Cemex, in addition to seven import terminals which can be used for imports of cement, GGBS or other cementitious materials, is investing in a new cement and grinding GGBS plant³³ expected to come on stream in 2008 which will allow it to import slag from ThyssenKrupp's blast furnaces in Germany, with which it has reached a supply agreement.
105. Regarding Holcim, it is also currently active in GGBS in the UK and although it has a low presence, it is a significant player in Continental Europe, mainly in Germany, France and Belgium. Given its access to GGBS in Germany (Bremen) and that it operates four cement import terminals in the UK which could be easily used for handling GGBS, it is highly doubtful to conclude that Holcim would not be in a position to react to a hypothetical input foreclosure strategy.
106. Regarding Tarmac, it neither produces nor imports GGBS and therefore relies on third party supplies, including Hanson. Given that its position in the downstream markets for ready-mixed concrete and other concrete products is relatively significant (around [15-25]% and [10-20]% at national level respectively), the impact on competition in these downstream markets in case it were to be foreclosed cannot be dismissed. However, a foreclosure of Tarmac (and of other players) so that it would be forced to exit the market is in fact unlikely. Hanson in fact depends on Tarmac for the procurement of part of the raw material it needs for the production of GGBS, since Tarmac has [...] contract with [...], from whom it buys and processes the raw material (blast furnace slag) into GBS (granulated blast furnace slag) and in turn sells this GBS to Hanson who produces the final GGBS. Therefore, due to Tarmac's very strong position on GBS, the buyer power is balanced between both companies.
107. Furthermore, GGBS as such is not a critical component absolutely necessary for the production of concrete products and its use, with few exceptions, does not entail a significant product differentiation in the downstream markets. As already explained in the product market definition sections, concrete products basically need as inputs cement, aggregates and additives, normally fly ash and GGBS. However, in the final blend, the proportions of cement, fly ash and GGBS can vary and are substitutable each other to a certain extent. Therefore, the impact of a restriction of GGBS has to be assessed in the light of the possible reactions that the GGBS customers may undertake. Thus, GGBS can in practice be even entirely substituted by cement or by fly ash, a

³³ Tilbury Docks.

possibility which, despite the differences in characteristic and prices (in any case fly ash is cheaper than GGBS) constitutes a real threat on the company trying to implement the foreclosure strategy.

108. For example, despite some differences such as the setting time for some ready mixed applications stated above, the parties estimate that amongst ready-mixed concrete producers in the UK, around [0-10]% use both GGBS and fly ash, [55-65]% use GGBS only, [10-20]% use fly ash only and [15-25]% do not use any cement additives. Product standards do not require choosing a certain product mix and for all classes of concrete³⁴ either GGBS or fly ash can be used. Even if for a given application the use of GGBS were to be necessary, the possibility of switching to cement or fly ash in other applications would constitute a real threat for the Parties.
109. In fact, according to the information provided by the parties, [...] has already switched part of its demand of Hanson's GGBS to fly ash supplied by a third party in a number of its plants [...]. This alternative could also be followed by Lafarge, who produces and sells fly ash in the UK through a joint venture with the power generator Scottish Power. The parties estimate that out of the 6 millions t. of fly ash produced in the UK, 1.6 million t. is suitable for its direct use without further processing, out of which only 0.5 millions t. is currently used.
110. The above course of action (switching to alternative components) can also be followed by the smaller non integrated ready-mixed concrete/other concrete products producers, which in addition, in a great majority, have not raised concerns as regards this transaction.
111. In addition, with respect to the impact of using fly ash or GGBS on the final cost of the concrete product, the parties have provided a comparison of prices for ready-mixed concrete using various proportions of fly ash or of GGBS. The price differences do not seem to be significant. For example, if 100% cement is used, the average cost per cubic meter is [40-50] £; in a blend cement/fly ash 70%/30%, the cost is [40-50] £ ([0-5]% cheaper), and in a blend cement/GGBS 70%/30% the cost is [40-50] £ ([0-5]% cheaper). Therefore, the impact of using different additives or cement in the cost of concrete products appears to be rather limited.
112. The above analysis refers to the risk that the merged entity would strategically engage in input foreclosure with the goal of enhancing its market position in the market for ready-mix concrete/other concrete products. The conclusion is that the merged entity would have neither the ability nor the incentive to foreclose its rivals.
113. However, the merger may not be neutral, having an impact on the relative prices of GGBS, cement and fly ash. Hanson would have access to cement at marginal cost, thus internalizing Heidelberg's margin on cement. As a result it can be expected that the merged entity would alter the relative proportions of cement and GGBS. Now that Hanson has access to cement at a cheaper price it will likely use relatively more cement than GGBS in the mix than in the absence of the merger. This would have three main effects.

³⁴ Except from certain specialties rarely traded (Form CO, p.212)

114. First and foremost the merged entity would be able to select a more efficient mix of inputs which would tend to reduce its downstream price for ready-mix concrete which would result in an efficiency benefiting final customers.
115. Second, the increased use of cement internally would tend to reduce the supply of cement by Heidelberg to the merchant market. This would tend to increase prices of cement thus restricting the ability of non-integrated producers to choose the most efficient combination of inputs. However, as explained above, given Heidelberg's relative position in the cement market and that integrated producers are unlikely to be affected, it is unlikely that this distortion would be significant leading to higher prices of ready-mix concrete.
116. Finally, as the merged entity reduces its use of GGBS relative to cement its supply to the merchant market would increase, which in itself further invalidates an input foreclosure strategy since.
117. In the light of the above, it appears that a foreclosure strategy restricting access to GGBS would be unlikely given the lack of incentives and, even if these incentives were to exist, the alternative strategies that the foreclosed companies could follow to limit the impact of such behaviour.

Fly ash and GGBS considered as a single product market

118. If cement additives are considered as a single relevant product market, the parties would have a combined market share of [40-50]% in volume (Heidelberg [< 5]% and Hanson [40-50]%) or of [60-70]% in value (Heidelberg [< 5]% and Hanson [60-70]%). Since only Hanson is active on the downstream markets for ready-mixed concrete and other concrete products with a market shares below 25% and Heidelberg's market share in cement additives is insignificant (at most [< 5 %]), the impact of the transaction on the market structure is very limited.
119. The arguments given above as regards GGBS and fly ash considered as separate product markets equally applicable under this product market definition and therefore the assessment does not change.

A market for cementitious products

120. Considering the hypothetical market for cementitious products (grey cement and cement additives), the parties would have a combined market share of [25-35]% (Heidelberg: [15-25]%, Hanson [5-15]%). Only Hanson is present on the downstream market for ready-mixed concrete, with a market share of [15-25]%).
121. The risk of anticompetitive effects is in this case even lower than in the scenarios assessed above as the market shares are much lower. The same arguments put forward above are equally valid in this case and therefore the assessment does not change.

(ii) Bundled sales of cement and GGBS

122. The investigation has also raised concerns, although to a limited extent, as regards the possible bundling of sales of cement and GGBS that the new entity may impose post-merger, given its relative strong position in cement ([20-30]%) and in GGBS ([80-90]%).

123. However, the likelihood of such a strategy being successful or that, if implemented, it may have a significant impact on competition on the downstream markets, is very low.
124. Firstly, the main purchasers of Hanson's GGBS are the major cement producers, the latter having a clear picture of the key strategic drivers in the cement and concrete industry taken as whole. The possibility for such actors to find themselves in a position in which they would be imposed to buy cement from their competitor Heidelberg is highly hypothetical. This is even more the case when taking account of their possible alternatives to react, as already explained in detail above: imports from Continental Europe of GGBS or switching fly ash or pure cement. It should be noted in this respect that the costs savings achieved by using GGBS instead of pure cement are of relatively low magnitude in the final price of ready-mixed concrete. According to the parties' estimation, ready-mixed concrete containing 30% of GGBS (relatively to grey cement) is less than [0-5]% lower than ready-mixed concrete containing only cement.
125. Secondly, the smaller non-integrated producers represent a very small amount of GGBS purchases, around [0-10]% of Hanson's current sales and have the same opportunities than the bigger players to switch either to fly ash or to cement. In addition, some of them have started to import GGBS from Continental Europe, as it is the case for Brett who operates a GGBS terminal in south-east England. A number of cement terminals located on the UK seashore could also be used to import cement as both products can be handled with the same machinery. Consequently, should the merged entity link the sales of GGBS and cement, GGBS imports from the continent could further develop. The terminals are, according to the Parties, currently significantly underutilized³⁵.
126. Thirdly, although the Parties have submitted that cement is the most profitable activity, such profitability may vary from one year to another. For instance, the Parties submitted that the EBITDA margin on Heidelberg's UK cement sales in 2006 was [...], and the EBITDA margin on Hanson's UK GGBS sales [...] on the 10-month period up to December 2006. In this present case, when margins on GGBS are higher than the margins on cement, as it was the case for 2006, it would not be rational for the merged entity to risk to lower the GGBS sales by entering into a GGBS/cement bundling strategy as to favour the cement sales. More generally, no element of the market investigation sustained a possible strategy by which the party would strategically limit supplies of cement or of GGBS one to the other for profitability reasons.
127. One of the concerns referred to a particular application of GGBS for the production of coloured concrete, in particular concrete block pavings. It appears that in this application the switch from GGBS to fly ash is limited as it confers to the final product a darker aspect and thus the use of GGBS would be necessary. However, even if post-merger Heidelberg were to engage in bundling sales as regards the undertaking expressing concerns, the impact on competition in the concrete pavings market would be rather limited. The market is characterised by a number of players apart from the parties (via Hanson with [10-10]%) such as Marshalls ([35-45]%), Cemex ([5-15]%), Holcim ([5-15]%), Brett ([15-25]%), Plasmor ([0-10]%) and others (around [5-15]%). The market investigation has not raised substantial concerns in this market apart from the one mentioned. Moreover, many players (such as Cemex, Holcim and Brett) have

³⁵ The overall capacity utilization ratio of the UK cement terminals would be around 25%.

in-house GGBS production, and therefore a bundling strategy of Heidelberg vis à vis these players is unlikely to be effective.

128. From the above, it can be concluded that, in any case, the impact on competition in the concrete pavings market would not be significant.

E. GERMANY

Horizontal aspects

129. Although Germany is Heidelberg's home market, the proposed transaction does not lead to any horizontally affected market in this country. Hanson's activities are limited to Eastern Germany where it operates three crushed rock quarries, four sand and gravel sites. Heidelberg is active in aggregates, cement, ready-mixed concrete, concrete products and other building materials. Under any possible product and geographic market definition, the horizontal overlaps are limited and do not raise any competition concern.
130. On an overall market for aggregates in Germany, the new entity's market share will be of [0-10]% (Heidelberg: [0-10]%, Hanson: [< 5]%). Considering narrower geographic and product market definitions, the market share of the new entity is at most of [10-20]% (Heidelberg: [0-10]%, Hanson: [0-10]%) considering an overall market for aggregates in 80km radius circles around Hanson's production sites in Thuringia. Consequently, as confirmed by the market investigation, the transaction is not likely to give rise to competition concerns on these markets. In any case, if local markets are considered, no substantial part of the common market would be affected.

Vertical aspects

131. Hanson supplies aggregates in Germany. Heidelberg operates several ready-mixed concrete and pre-cast concrete products plants in areas where Hanson is active. Therefore, the transaction creates a vertical relationship between Hanson's aggregates and Heidelberg's concrete production activities. However, regarding the low market shares of the parties on these markets, there is no vertically affected market.
132. Indeed, considering the parties' combined market share in aggregates in these regions ([10-20]% in Thuringia and [< 5]% in Brandenburg) and Heidelberg's limited downstream market shares ([15-25]% for ready-mixed concrete in Thuringia/Saxony, [5-15]% for pre-cast concrete products in Thuringia/Saxony, [15-25]% for ready-mixed concrete in Brandenburg, [0-10]% for pavings in Brandenburg), any competition concern can be dismissed. This was confirmed by the market investigation.

F. ADDITIONAL CONCERNS

133. In the course of the procedure, a company ("the complainant"), though currently not active on the markets affected by the transaction, expressed concerns about (i) the overall degree of vertical integration of the major cement producers active on the European markets and (ii) the existence of prescriptive cement and concrete standards which would exclude manufacturers of innovative building materials from the European markets. The complainant alleged that the proposed transaction, by reinforcing the market power of a limited number of vertically-integrated cement producers, would significantly affect the conditions of competition on the European

building materials market, and, in particular, dismiss any opportunity for innovative "green" alternatives to fairly compete with cement and concrete.

134. In addition to the detailed market-by-market competitive assessment where these questions are addressed in the factual circumstances of each market, the arguments put forward by this third-party are further considered at a more general level in the following sections.

(i) Vertical integration in the European cement industry

135. According to the complainant, the large cement producers in Europe have moved into the aggregates and ready-mixed concrete markets as part of a long-term strategic policy whose objective would be to get a complete control over the destination of cement supplies on the European markets and thereby limit the competition from non-European cement producers and alternative cement producers. By buying out ready-mixed concrete producers, i.e. by expanding into the main downstream market for cement, these cement manufacturers would have indeed the possibility to boycott imported cement and non-Portland cement. Besides, as to discipline the remaining independent ready-mixed producers, and prevent them to buy imported or alternative cement, the integration into aggregates would give these cement groups the ability to retaliate against the dissident ready-mixed concrete producers by, for example, raising the costs of their aggregates and cement supplies. In general, the vertically-integrated cement groups would have an incentive to favour in-house raw materials sourcing and, therefore, the proposed transaction could lead to input foreclosure for independent ready-mixed concrete producers. In summary, according to the complainant, the cement producers vertically-integrated into ready-mixed concrete production and aggregates extraction are likely to engage in anticompetitive practices combining both (a) input foreclosure (cement and aggregates supplies to rival ready-mixed concrete producers) and (b) customer foreclosure (in-house ready-mixed concrete plants boycotting imported or alternative cement supplies) strategies.

136. The merged entity is unlikely to adopt such foreclosure strategies for the following reasons.

(a) Input foreclosure

137. As to input foreclosure, firstly, it should be noted that profitability varies along the supply chain of concrete production. Cement manufacture, which requires a specific know-how and has high fixed costs, is the production stage with the highest value added. Margins on aggregates are also high by the standards of the building materials industry. On the contrary, ready-mixed concrete activities generate smaller returns. Consequently, it is not rational for the merged entity to restrict its sales of cement and aggregates to favour its in-house ready-mixed concrete activities.

138. Secondly, regarding the high fixed costs of cement production, a cement plant has to achieve a relatively high capacity utilization ratio to attain profitability. Consequently, it seems unlikely that the merged entity would have an economic interest in lowering its cement output to achieve strategic goals.

139. Thirdly, the merged entity does not have the control over the source of supplies for cement alternatives which are by-products of other industrial processes in markets where the cement producers are not active (electricity production, steel manufacture).

Therefore, it cannot prevent the entry of new cement additives suppliers and the use of cement additives by non-integrated ready-mixed concrete producers.

140. Fourthly, in general, the high level of fragmentation of the aggregates sector in Europe dismisses the possibility for the merged entity to leverage its sales of aggregates to rival ready-mixed concrete producers.

(b) Customer foreclosure

141. As to customer foreclosure, firstly, the high transportation cost relatively to the product value for aggregates as well as cement would make economically unprofitable to discriminate systematically supplies outside of the new entity. Indeed, when, within a vertically-integrated group, a ready-mixed concrete plant is closer to an aggregates quarry of another company rather than to the quarries owned by the group, the aggregates in-house supplies might come at a much higher cost than the merchant market supplies. The same goes for the cement and ready-mixed concrete activities.
142. Secondly, it seems very unlikely that the combined entity would voluntarily stop incorporating cement additives in its ready-mixed concrete activities as these products come at a lower cost and generate less CO₂ emissions than Portland cement. It should be noted in this respect that cement production is covered by the EU Emissions Trading Scheme. The cement producers have therefore the incentive to blend their cement with green alternatives either directly at the cement production stage or later in the value chain in the concrete production.
143. Thirdly, the residual competition on the downstream markets for cement additives (pre-cast concrete products, ready-mixed concrete) in the affected markets makes it impossible for the merged entity to prevent the entry of alternative cement manufacturers.
144. For the general reasons set out above and the results of the market-by-market analysis, any risk of input or customer foreclosure strategy by the merged entity can be dismissed.

(ii) Standards and innovation

145. The complainant alleges that, because of the active lobbying of the major cement producers operating on the European markets, the standards for cement and concrete currently in force in Europe are restrictive and prevents the entry of innovative materials manufacturers. The assessment of the actual degree of control of the cement producers over the standard setting procedures is of no relevance as regards this decision. However, it should be noted that, in the framework of the Construction Products Directive 89/106/EEC³⁶ a so-called European Technical Approval (ETA) may be granted to products for which there is neither a harmonized standard, nor a recognized national standard, nor a mandate for a harmonized standard, and for which the Commission considers that a standard could not, or not yet, be elaborated and for products which differ significantly from harmonised Standard or recognised national

³⁶ Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products, OJ L 40 of 11.2.1989, p. 12.

Standard (Article 8). Through this route, innovative products, i.e. products not covered by an existing standard, either national or European, can get CE-marked and thereby compete with cement (respectively concrete) complying with existing standards. Moreover, a European standard facilitating the use of GGBS in concrete production was introduced in 2006 (EN15167); and that the European standard for cementitious fly ash (EN450) was revised in 2005 to promote the use of fly ash in concrete production. Considering the existence of a dedicated certification route for innovative products, it seems therefore very unlikely that the proposed transaction would lessen the innovation on the cement and concrete markets through a potential misuse of standards. It should be finally underlined that none of the respondents to the Commission's market investigation raised this issue of standards.

V. CONCLUSION

146. For the above reasons, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation (EC) No 139/2004.

For the Commission, signed,
Janez POTOČNIK
Member of the Commission