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Case No COMP/M.5227 - ROBERT BOSCH / SAMSUNG / JV

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REGULATION (EC) No 139/2004
MERGER PROCEDURE

Article 6(1)(b) NON-OPPOSITION
Date: 18/08/2008

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COMMISSION OF THE EUROPEAN COMMUNITIES

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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 Where possible the information omitted has been replaced by ranges of figures or a general description.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.5227 – Robert Bosch/ Samsung/ JV
Notification of 10 July 2008 pursuant to Article 4 of Council Regulation No 139/2004[1]

1. On 10/07/2008 the Commission received a notification of a proposed concentration pursuant to Art. 4 of Council Regulation (EC) No 139/2004 by which the undertakings Robert Bosch GmbH ("Bosch", Germany) and Samsung SDI Co. Ltd. ("Samsung SDI", South-Korea) acquire within the meaning of Article 3(1)(b) of the Council Regulation joint control of the newly created Joint Venture SB LiMotive Co. Ltd. ("SB LiMotive", South Korea) by way of purchase of shares.

I. THE PARTIES

2. Bosch is a company with worldwide activities focussing on technology for the automobile industry, industrial technology, building technology and consumer goods.

3. Samsung SDI develops, produces and sells a wide range of displays for monitors, mobile phones and other portable devices. Samsung SDI also develops, produces and sells rechargeable batteries for the use in electronic products like mobile phones, laptops, cameras and camcorders.

4. SB LiMotive – the Joint Venture the notifying parties plan to set up - will develop, produce and market lithium-ion ("Li-ion") battery systems for application in hybrid electric and other electric vehicles.

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1 OJ L 24, 29.1.2004 p. 1.

II. THE OPERATION

5. Samsung SDI will set up SB LiMotive in South-Korea. Eventually, Bosch will hold […] and Samsung SDI will hold […]. […]. […]. Each party will have the right to nominate an equal number of board members. […]. Bosch and Samsung SDI will therefore have joint control over SB LiMotive.

III. CONCENTRATION

6. Since the newly created Joint Venture SB LiMotive will perform on a lasting basis all the functions of an autonomous economic entity, the transaction constitutes a concentration within the meaning of Article 3(4) EC Merger Regulation.

IV. COMMUNITY DIMENSION

7. The undertakings concerned have a combined aggregate world-wide turnover of more than EUR 5,000 Mio. (Bosch: EUR […], Samsung SDI EUR […]) and the aggregate Community-wide turnover of each of at least two of the undertakings is more than EUR 250 million (Bosch: EUR […], Samsung SDI: EUR […]). The notified operation has a Community dimension within the meaning of Article 1(2) of EC Merger Regulation. Neither Bosch nor Samsung SDI achieves more than two thirds of their Community-wide within one and the same Member State.

V. COMPETITIVE ASSESSMENT

8. The objective of SB LiMotive is to enter the market for battery systems for hybrid electric vehicles and other electric vehicles. Several companies plan at the moment to develop new technologies for battery systems for hybrid electric vehicles and other electric vehicles as this is seen as one solution for the growing demand for motor vehicles with fewer emissions and lower fuel consumption.

1. RELEVANT PRODUCT MARKETS

9. With increasing fuel prices and the necessity to reduce greenhouse gases, vehicle manufacturers have recently started to look for alternatives to combustion engines. One alternative drive system is the concept of a hybrid electric vehicle ("HEV") which combines a conventional combustion engine with an electric motor with additional electric supply. This electric motor supports the primary, conventional drive system. "Micro", "mild", "plug-in" and "full" hybrid vehicles can be distinguished based on the extent to which the electric motor is utilised. Micro hybrids only involve a "start/stop" automatism that stops the engine at times when the car does not move. The movement of the car is exclusively attributable to the combustion engine. In mild hybrids, an electric motor supports the combustion engines. In full hybrids, the vehicle is able to travel short distances by electric motors only. Plug-in systems are systems where the car can be recharged through external sources whereas the other systems recover electric energy from kinetic energy during the braking process.

10. In all systems except the micro hybrids a separate electric drive train – in addition to the traditional drive train connected to the combustion engine – is required. The parties submit that in the long term perspective, the development of electric vehicles which solely rely on electric motors is possible. An electric drive train consists of the following components:

    - The electric engine which supports the combustion engine and recovers energy during the braking process which is then used to recharge the battery system
    - The battery system
    - Power electronics which transfer and adapt the electric energy delivered by the battery system to the current needed by the electric engine
    - The hybrid control unit which manages, monitors, and coordinates the various subsystems of the hybrid drive train.

11. The battery system comprises a battery pack, an aggregation of battery cells, and a battery management system. At the present time, two battery technologies are available which can be used in hybrid systems: Nickel-metal-hydride ("NiMH") batteries and Li-ion batteries. NiMH batteries are a more mature technology but can store less energy and have a shorter lifetime than Li-ion batteries. Li-ion batteries have so far been used in consumer electronics. However, the Li-ion technology needs to be considerably further developed before it can be used in hybrid systems in vehicles. For instance, in order to reach the significantly higher performance levels required for HEV vehicles, there needs to be a new type of Li-ion battery with different cell and battery size and effectively requiring different cell architecture. Separately, the lifespan of the existing Li-ion batteries used in electronic products needs to be at least tripled. Indeed, particular safety precautions need to be taken due to the risks involved in using Li-ion batteries in combustion vehicles. Therefore, Li-ion batteries as currently used in electronic products are a different product to the Li-ion batteries which would be developed for use in HEVs.

12. The market investigation[2] confirmed that based on demand-side and supply-side considerations, Li-ion batteries for HEVs are likely to constitute a distinct product market in the future. Market participants expect that the performance of Li-ion batteries will gradually improve and that they will in the long run replace NiMH batteries provided that their price decreases significantly. For manufacturers it is not possible to switch from the production of NiMH batteries to the production of Li-ion batteries without incurring significant costs.

13. According to the parties, complete battery systems will be offered on the market in the future. However, customers who wish to create their own battery systems might also source the components (batteries and battery management systems) individually. Replies in the market investigation to the question of whether customers prefer to source individual components and/or systems were mixed. OEMs tend to source both individual components and partially integrated systems, according to their needs.

14. However, for the assessment of this case it is not necessary to conclude on the product market definition as even under alternative possible market definitions – (i) a market for Li-ion battery systems used in HEVs, (ii) a market for battery systems used in HEV including NiMH, (iii) a market for components for electric drive trains in HEV, (iv) a market for

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2 10 competitors and 9 OEMs answered the market investigation.

integrated systems for HEV comprising several components – the planned transaction does not raise serious doubts as to its compatibility with the common market.

2. RELEVANT GEOGRAPHIC MARKETS

15. The parties submit that the geographic market is at least EEA-wide if not worldwide. This is in line with recent decisions relating to components for the automotive industry.[3] The market investigation has confirmed that the market for battery systems is likely worldwide, as to date most of Li-ion batteries are produced in East-Asia and supplied world-wide. Specific regulation for the shipment of the potentially hazardous batteries (Lithium is a metal which is easily enflamed) do not constitute barriers to world-wide supplies. However, even under the assumption of an EEA-wide market, the transaction does not raise serious doubts as to its compatibility with the common market.

3. COMPETITIVE ASSESSMENT

16. SB LiMotive will be active in the development, production and marketing of battery systems for hybrid electric vehicles and full electric vehicles. The parties expect to be able to supply a fully tested and developed product no earlier than 2011 or 2012.

17. The parties submit that neither Bosch nor Samsung SDI is active on the market for batteries in HEV, or a market for components for electric drive trains in HEV, or a market for integrated systems for HEV. Lead acid starter batteries which Bosch currently produces cannot be used in the electric power train in a hybrid electric vehicle or a full electric vehicle.

18. According to the parties, Samsung SDI's current activities in the production of Li-ion batteries for electronic products do not create a horizontal overlap either, because they cannot be used in electric drive trains due to their specific functionalities.[4] This is confirmed by the market investigation. Competitors described in detail their aim to develop Li-ion batteries with functionalities which are currently not available but which are necessary if they are used in electric drive trains.

19. Furthermore, the parties submit that the fact that Bosch is currently developing other components for the electric drive train does not create a horizontal or vertical relationship to the market for battery systems for hybrid electric vehicles and electric vehicles because major OEMs are more likely to source components individually than to buy systems and that in any event they are free to choose if they prefer buying systems or components.

20. In that respect, two competitors expressed concern in response to the market investigation that the Joint Venture might enable the parties to bundle electric drive train products and Li-ion battery systems. However, the parties would neither have the ability nor the incentive to

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[3] Compare Commission Decision of 29 November 2007, Case COMP/M.4878, Continental / Siemens VDO, recital 50 -51.

[4] See recital 11.

foreclose their competitors.[5] Bosch is still in the process of developing components for electric drive trains. So far, its position on this emerging market is comparable to those of its competitors (indeed, as noted below, some of its competitors appear to have more advanced Li-ion battery projects). As it is still in an early phase of product development it does not have any market share. Samsung is also still in the process of developing and improving the technology for Li-ion battery systems to be used in HEV but as yet it does not have any market share either. However, non-horizontal mergers pose only a threat to effective competition if the merged entity has a significant degree of market power in at least one of the markets concerned which normally is not the case if the market shares are below 30%.[6] It has to be noted that several competitors such as A123, Continental, Li-Tec, Johnson Controls, Sanyo are in development projects for HEV battery systems, partly in very close cooperation with OEMs, and some of these projects seem to be in a even more advanced stage than the parties. Respondents to the market investigation confirmed that entry by several competitors in the close future is likely in this emerging market with considerable growth potential.

21. Furthermore, none of the OEMs expressed any concerns about anticompetitive effects resulting from this transaction, and some even explicitly welcomed it as a valuable contribution to effective competition in these markets. A majority of OEMs has confirmed that they generally prefer a multi-sourcing strategy and intend to pursue such a strategy with regard to electric drive trains and battery systems. In addition, the Commission has referred to the considerable buying power of OEMs in several past decisions in the automotive components sector.[7] Finally, in the current market phase there is no incentive for the parties to bundle products as they have an interest in being chosen as suppliers by the OEMs who – as has already been mentioned – would not accept a bundling strategy from the beginning.

VI. CONCLUSION

22. 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)
Androulla VASSILIOU
Member of the Commission

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5 Compare Commission Notice, Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, paragraphs 95, 105.

6 Compare Commission Notice, Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings, paragraphs 23 – 25.

7 Commission Decision of 7 March 2008, Case COMP/M.5039, Brose Fahrzeugteile/Continental Assets, recital 21; Commission Decision of 29 November 2007, Case COMP/M.4878, Continental/ Siemens VDO, recital 53.