

***Case No COMP/M.3809 -
SIEMENS / FLENDER***

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

Article 6(1)(b) NON-OPPOSITION
Date: 29/06/2005

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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 29.06.2005

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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 Where possible the information omitted has been replaced by ranges of figures or a general description.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.3809 - SIEMENS / FLENDER
Notification of 26/05/2005 pursuant to Article 4 of Council Regulation
No 139/2004¹**

1. On 26/05/2005, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004, by which the German company Siemens AG (“Siemens”), acquires within the meaning of Article 3(1)(b) of the Council Regulation sole control of the German company Flender Holding GmbH (“Flender”) 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 No 139/2004 and does not raise serious doubts as to its compatibility with the common market and the EEA Agreement.

¹ OJ L 24, 29.1.2004 p. 1.

I. THE PARTIES AND THE OPERATION

3. **Siemens** is active in power generation, transmission and distribution of power, automation- and traction technology, plant engineering and construction, technical services, traffic engineering, building services engineering, automotive engineering, logistic systems, information technology and telecommunications. **Flender** produces mechanical power transmission equipment (such as gears, geared motors and couplings), inverters, generators and electrical motors.
4. As a result of the transaction, Flender will be wholly owned by Siemens and will be integrated in its Automation & control division.

II. COMMUNITY DIMENSION

5. The combined aggregate world wide turnover of the undertakings concerned exceeds € 5000 million (Siemens: € 75 200 million, Flender € [...] in 2004). The aggregate Community wide turnover of the parties exceeds € 250 million (Siemens: € [...] million, Flender € [...] million in 2004). The parties do not achieve more than two-thirds of their aggregate Community wide turnover in one and the same Member State. The notified operation, therefore, has a Community dimension according to Article 1(2) of the Merger Regulation.

III. RELEVANT MARKETS

The relevant product market

6. Flender's core business consists of industrial mechanical power transmission products, some of which Siemens integrates in its power application products. The concentration gives rise to horizontally affected markets for (i) electric motors, (ii) wind generators and (iii) frequency inverters. As Siemens is a wind turbine producer, the transaction leads to a vertically affected market for wind gear units. Also, there are vertically affected markets for Flender's turbo gears, which are used in Siemens' drive train systems and for passenger transport gears, which Siemens uses in its railway rolling stock applications.

Electric motors

7. Electric motors transform electric energy into mechanical energy and are used in a wide range of industries and applications. Electric motors can be sold as a package (e.g. with a drive or a gear) or as individual units. Siemens submits that, on the basis of supply-side substitutability, there is one overall market for electric motors. The market investigation has confirmed this, as all large suppliers are able to produce a range of electric motors of varying size and power and are able to switch production capacity easily between different types of motors. In line with a previous Commission decision², it is possible to segment the overall electric motor market into motors up to and including 100 kW (often referred to as standard or industrial motors) and motors greater than 100 kW (large or special motors).

² Case No. IV/M. 540, Celegec/AEG

Siemens submits that the dividing line with high-power motors is currently to be situated at 200kW.

8. In any case, for the purpose of this decision, the precise definition of the product market can be left open, since in no alternative product market will the proposed operation significantly impede effective competition in the common market or a substantial part of it.

Wind generators

9. Wind generators are used in wind turbines, and convert the mechanical power of the wind turbine's rotor into electrical power to produce electricity. Wind generators can be distinguished from other types of generator (steam, hydro and heat recovery) on the basis of their wind-specific design features, such as the fact that the wind turbine rotor supplies fluctuating mechanical power depending on wind speed, the swept area and the density of the air. The market investigation has confirmed that wind generators form a market in itself.

Drives

10. A drive consists of a micro processor-based control unit and an electronic power inverter - unit, control software and input/output connections to the process that is controlled. A drive is part of a drive system. A drive system is composed of a motor and a switch gear. The motor transforms electrical energy into mechanical energy. The purpose of a drive is particularly to control the speed and the torque of the motor. Drives are used to accelerate and decelerate motors as used in conveyor belts, pumps, compressors and production machines.
11. The Commission previously³ defined a market for drives with a performance of up to 100 kW ("low end drives") and a market for "high end drives" (above 100 kW). Low-end drives are fairly standard products, which are mass-produced in large quantities. The market investigation has confirmed that there is no need for differentiation according to the applications in which such drives are used as there is significant demand-side substitutability.
12. High end drives are often produced according to client specifications and in significantly smaller quantities than low end drives. Some third parties have indicated that drives with a performance in excess of 100kW could be sub-segmented into liquid cooled drives, and 4-quadrant drives.
13. In any case, for the purpose of this decision, the precise definition of the product market can be left open, since in none of these alternative product markets will the proposed operation significantly impede effective competition in the common market or a substantial part of it.

Gear Units

14. Industrial gears and gear boxes are used in a wide variety of industries where there is a need to manage speed, torque and the direction of rotation of driven machine

³ Case No COMP/M.540, *CEGELEC/AEG*

elements. Gear units are generally made up of a combination of different standard industrial gears but can also be produced to clients' specifications.

15. Gears can be measured in terms of torque and, as previously considered⁴, can be classed accordingly into low torque, medium torque and high torque. Also, there are a number of different application segments (heavy duty, industrial gears, wind gears, turbo gears, passenger transportation gears and standard gears). Wind gear units help the generator to convert the slowly rotating, high torque received from the wind turbine rotor into high speed, low torque. Wind gear units can vary considerably in power, rotor speed, rotor torque and weight, but all result from a recognised standard production process, that all key competitors conform to.
16. Turbo gears are mostly used for power generation, in combination with generators and medium steam turbines (less than 40 MW) or small gas turbines (up to 15 MW).
17. Gears for passenger transportation (including cargo transportation) are used in high speed trains, self-propelled electrical multiple units (EMUs) and diesel multiple units (DMUs) for intercity transport, EMUs and DMUs for regional transport, trams and light rail vehicles, underground vehicles and airport people movers.
18. Whilst such segmentation could be justified on the basis of limited demand-substitutability, the market investigation has indicated that there is also a considerable degree of supply-side substitutability. Indeed, a number of gear producers make a range of gears and can switch production from one type of gear to another in response to changes in demand. As only vertical relations arise from the transaction, and more specifically for wind gears and turbo gear units (high torque) and passenger transportation gear units (medium torque), these applications will be considered for the purpose of this assessment as constituting distinct markets.
19. In any case, for the purpose of this decision, the precise definition of the product market can be left open, since in no alternative product market will the proposed operation significantly impede effective competition in the common market or a substantial part of it.

The relevant geographic market

20. For all product markets described above, the parties submit that the geographic scope of these markets is EEA-wide on the basis of the low level of transport costs, the multinational presence of all major competitors and the availability of EEA-wide technical standards. The market investigation has broadly confirmed this. For electric motors and wind generators, the parties submit that the markets could be wider in scope than the EEA.
21. In any case, for the purpose of this decision, the precise geographic scope of the market for electrical motors and wind generators can be left open, since on neither an EEA nor on a world-wide basis will the proposed operation significantly impede effective competition in the common market or a substantial part of it.

⁴ Case No COMP/M.1933 *Citigroup/Flender*

22. The markets, downstream of gears, on which Siemens is active, have been considered in previous Commission decisions⁵. Wind-, gas and steam turbines and geared motors are at least EEA-wide. Rolling stock equipment (in which Siemens integrates passenger transport gears) has in previous decisions been considered on a national level although an EEA-wide scope was not excluded⁶. In any case, for the purpose of this decision, the precise geographic scope of these downstream markets can be left open, since on none of the alternative geographical markets will the proposed operation significantly impede effective competition in the common market or a substantial part of it.

IV. COMPETITIVE ASSESSMENT

Horizontal relationships

(a) *Electric motors*

23. Considering an overall motor market, the parties' will, according to Siemens, have a combined share of around [10% - 20%] (Siemens [10% - 20%] and Flender [0% - 10%]), slightly below market leader ABB ([10% - 20%]). If the market is further segmented, there would be an affected market for both motors up to and including 200kW ([10% - 20%], with Siemens having [10% - 20%] and Flender [0% - 10%]) and in motors with a power output in excess of 200kW ([10% - 20%], with Siemens having [10% - 20%] and Flender [0% - 10%]). Although Siemens will become the market leader in the below 200kW segment, this market for standardised motors is highly competitive, with ABB, WEG, VEM and Emerson being established competitors. In the more specialised segment above 200kW, ABB is the clear market leader ([20% - 30%]). WEG and VEM have respectively [0% - 10%] and [0% - 10%]. Setting the dividing at 100kW does not alter these market shares significantly. On the basis of these market shares, which have been broadly confirmed by the market investigation, it is not likely that the proposed operation could significantly impede effective competition in the common market or a substantial part of it.

(b) *Wind generators*

24. According to Siemens, Siemens and Flender together account for approximately [10% - 20%] of all EEA wind generator sales (Siemens [10% - 20%] and Flender [0% - 10%]). ABB will remain the market leader with [30% - 40%]. Weier, VEM and Indar all have market shares between [10% - 20%] and [10% - 20%]. On a global wind generator market, the new entity would have a slightly higher combined market share of [20% - 30%]. These market shares have been broadly confirmed by the market investigation. On the basis of these market shares, it is not likely that the proposed operation could significantly impede effective competition in the common market or a substantial part of it.

⁵ See Case No COMP/M. 2780 GE Wind Turbines/Enron and Case No COMP/M.3148, *Siemens/Alstom Gas and Steam Turbines*

⁶ In Case COMP/M.2139, *Bombardier/Adtranz*, the Commission assessed regional transport vehicles, underground vehicles, trams and light rail vehicles on a national basis specifically for those countries where a strong domestic railway technology industry exists.

(c) *Drives and Frequency Inverters*

25. The acquisition of Flender has been notified by Siemens in parallel to the acquisition of VA Tech.⁷ The following market shares are including the market shares of VA Tech and of the joint venture between VA Tech and Schneider/Toshiba in order to assess the maximum harm to competition that could arise through the two acquisitions. On an EEA-wide market level, Siemens claims that the combination of Siemens/VA Tech and Flender only gives rise to an affected market for drives up to and including 100 kW. The new entity would have a combined market share of around [10% - 20%], with Flender adding [0% - 10%]. The market investigation verified whether the market for inverters above 100kW might be affected. However, it appears that Flender will add less than [0% - 10%] to Siemens' market share, bringing their combined market share to between [10% - 20%] and [10% - 20%].
26. Also when looking at a more segmented market for drives in excess of 100 kW, the acquisition of Flender does not significantly add to Siemens' market position. A segmentation into liquid coolant and 4-quadrant does not increase the new entity's combined market share significantly. Flender adds less than [0% - 10%] to Siemens, leading to a combined market share of less than [10% - 20%].
27. A customer of Flender has submitted that it has specific explosion proof drive system requirements that only Flender or Siemens (VA Tech) can meet. This claim has not been confirmed by the market investigation. Other than Siemens/Flender's stronger rivals such as Alstom, ABB, Schneider and Danfoss, a number of niche players have specialised in drives in specific environments. Switching costs are relatively limited as the indicated requirements can be met by a large number of players.

Vertically affected markets

28. Flender is an important supplier of mechanical power transmission equipment that is used by Siemens in a number of downstream applications⁸. Considering an EEA market comprising all gears, Flender ranks second with a [10% - 20%] market share behind SEW ([20% - 30%]). The other European competitors have market shares below 5%: Getriebebau-Nord ([0% - 10%]), Bonfiglioli ([0% - 10%]), Leroy Somer/Emerson ([0% - 10%]), Hansen ([0% - 10%]), Metso ([0% - 10%]), Demag ([0% - 10%]) and Renk ([0% - 10%]). When further segmenting according to the torque level, Flender is the clear market leader for high torque gears ([20% - 30%]), with all other competitors having below 5% market shares, apart from Renk ([0% - 10%]). The market investigation has confirmed Flender's established position, but has not indicated that its integration into Siemens could lead to foreclosure effects or strengthen Flender's market position, either on the overall gear market or on any of the gear application markets discussed below.

⁷ See case COMP/M.3653 Siemens/VA Tech

⁸ Siemens does not produce mechanical power transmission equipment, apart from gears for incorporation in its own gear-type compressors and locomotives. Siemens does not sell these inputs to third parties

(a) *wind gear units*

29. Siemens uses wind gear units in its wind turbines. Flender is the leading wind gear supplier with a [40% - 50%] EEA market share (lower when assessed on the basis of a global market). Competing wind turbine manufacturers have stated that the integration of an important wind gear supplier into a wind turbine competitor is a reason for concern. However, all wind turbine manufacturers have confirmed that viable alternative European wind gear unit suppliers remain: Hansen ([10% - 20%]), Bosch-Rexroth ([10% - 20%]) and Metso ([0% - 10%]) are the most important in this growing market, but also Maag, Eickhoff and Renk are mentioned as viable substitutes. Changing suppliers does not entail major switching costs in as far as the major wind turbine manufacturers already multi-source their requirements and conclude longer term supply agreements that exclude price increase unless provided for in the agreement. Adding an additional source of supply would take 18 to 24 months at a cost that is below the 5% to 10% price increase used as the standard test for a hypothetical monopolist. In any case, it is unlikely that the new entity would have the incentive to foreclose its wind turbine competitors from supplies of Flender wind gear units. Siemens' market share in the downstream market for wind turbine market is only [0% - 10%] by installed capacity in the EEA in 2004 (lower when assessed on the basis of a global market) as it competes with much larger competitors such as Vestas ([20% - 30%]), GE Wind ([10% - 20%]) and Enercon GmbH ([10% - 20%]).
30. From the supply-side point of view, Siemens limited presence in the wind turbine market will not preclude the Flender's rivals from supplying their products downstream. Also, as Flender already supplies 100% of Siemens' demand, the vertical integration with Siemens will not increase Flender's market share in the supply of wind gear units or further foreclose gear suppliers from access to wind gear demand.

(b) *turbo gear units*

31. Siemens uses Turbo gear units in generators, compressors, gas turbines, steam turbines and motors as packaged drive systems. Flender's market share for EEA turbo gears is [20% - 30%]. Siemens' market shares in the downstream markets are below 25% for turnkey drive systems using turbo gears both on an EEA or world-wide level. If the downstream market were to be sub-segmented by type of turnkey drive system and application, there would be a vertically affected market for power generation using steam turbines less than 40MW for which Siemens has a [40% - 50%] market in the EEA (5 year average) and around [10% - 20%] world-wide. The market investigation has shown that steam turbine customers could relatively easily turn to other European gear suppliers – such as BHS ([20% - 30%]), Renk ([10% - 20%]), and Lufkin ([0% - 10%]). It is unlikely that, post transaction, Siemens would have the incentive to raise prices for gears, if such a strategy would put into risk the more valuable sale of the steam turbine itself. Whilst Siemens has established a historically strong position for steam turbines, it faces competition from a number of viable players such as Blohm & Voss ([10% - 20%]), GE Power ([0% - 10%]7%), Ansaldo ([0% - 10%]) and Mitsubishi Heavy Industries ([0% - 10%]) in the EEA steam turbine market. In addition, it needs to be taken into account that the EEA market for steam turbines less than 40MW is very limited (less than 10 units / year) as steam turbines are used relatively infrequently in the

EEA for drives applications. Finally, the new entity will represent only a small part of total downstream demand for turbo gear units as these are also used in applications (such as pumping systems), in which Siemens is not active.

(c) *passenger transport gears*

32. Siemens has an established position in a number of passenger transport / rolling stock markets. Siemens has above 25% market shares in the downstream rolling stock equipment markets for trams and light rail vehicles, underground trains and regional trains in several national markets. However, both on an European level and in important railway markets such as France and Germany, Siemens faces significant competition from Alstom, AnsaldoBreda, Bombardier and a number of smaller competitors.
33. From a demand-side point of view, the results of the Commission's investigation have pointed to the competitive nature of the up-stream market for passenger transport gears where Flender, with an EEA market share of [10% - 20%], faces a number of credible competitors, such as Voith ([10% - 20%]), ZF Bahn ([10% - 20%]) and Wateeuw ([0% - 10%]). These competitors are capable of neutralising any foreclosure attempt by Siemens. Also, most of Flender's downstream rolling stock gear customers satisfy their demands by internal production. Whilst a rolling stock competitor to Siemens has put forward that switching suppliers or turning to in-house production would take time and could come at a significant cost, other gear customers have not confirmed such switching problems as most of the demand is already dual-sourced and to a significant degree standardised. It appears that these switching costs are generally lower than a hypothetical (not taking into account longer term supply agreements) 5% to 10% price increase used as the standard test for a hypothetical monopolist. The time needed to switch (6 to 12 months) is generally shorter than the supply contracts in which Flender is engaged. Also, final customers for rolling stock have no preferences with regard to the supplier of the gears. In addition, the Commission's investigation has indicated that the merged entity would have little scope for raising competing rolling stock manufacturers costs, for instance by increasing the price of Flender's gear products, as these make up for less than 5% of the overall cost of the rolling stock. It can therefore be concluded that the acquisition of Flender will not increase Siemens' market power in any downstream market.
34. A competitor to Flender has argued that it could be foreclosed from the market for passenger transport gears as Siemens would source its future needs for passenger transport gears internally from Flender. Such foreclosure from a supply-side point of view is unlikely. When assessed on the basis of national markets, Siemens has market shares in excess of 25% in the markets for trams, metros and regional trains in several Member States, which are mostly between [30% - 40%] and [30% - 40%] (market shares calculated on the basis of orders received in the period 1999-2003). There are three markets in which Siemens has a market share in excess of 40%. These markets are to be found in Austria, where Siemens has [60% - 70%] for trams and [70% - 80%] for metros, and France ([40% - 50%] for metros). However, the Austrian market is rather small, and winning the one or two tenders, which took place in the five year reference period, leads to very high market share which do not give a good indication of market power. A similar reasoning applies to the French market for metros, where Siemens won [...] out of [...] orders.

Moreover, since the upstream market for gears is EEA- wide, and gear producers supply the overall rolling stock market, it is unlikely that a leading position such as the one that Siemens enjoys for Austrian trams or French metro's will lead to any significant foreclosure of rival gear producers. When looking at a hypothetical EEA-market only the market for trams would be vertically affected as Siemens has a share of [30% - 40%] on this market.

35. However, on each of these rolling stock downstream markets, both on an EEA and national level, Siemens faces significant competition. from Alstom ([20% - 30%] for trams in the EEA), Bombardier ([20% - 30%] for trams in the EEA) and several smaller but credible other European suppliers such as AnsaldoBreda, CAF, Skoda and recently Stadler. It can therefore be concluded that Flender's competitors will not be foreclosed from the passenger transport gears market as they will continue to have access to an important part of the downstream market, both in the EEA and on national markets.

V. CONCLUSION

36. It can therefore be concluded that the concentration will not significantly impede effective competition in the common market or in a significant part of it, in particular as a result of the creation or strengthening of a dominant position.
37. For the above reasons, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and 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
Neelie KROES
Member of the Commission