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Case No
COMP/M.3653 -
Siemens/VA Tech

Only the German text is authentic.

REGULATION (EC) No 139/2004

MERGER PROCEDURE

Article 8 (2)

Date: 13/07/2005

COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 13 July 2005

C (2005) 2676 final

PUBLIC VERSION

COMMISSION DECISION

of 13 July 2005

declaring a concentration compatible with the common market and the EEA Agreement

(Case No COMP/M.3653 - Siemens/VA Tech)

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Commission Decision

of 13 July 2005

declaring a concentration compatible with the common market and the EEA Agreement

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(Only the German text is authentic)

(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to the Agreement on the European Economic Area, and in particular Article 57 thereof,

Having regard to Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings,[1] and in particular Article 8(2) thereof,

Having regard to the Commission decision of 14 February 2005 to initiate proceedings in this case,

Having regard to the opinion of the Advisory Committee on Concentrations,[2]

Whereas:

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1 OJ L 24, 29.1.2004, p. 1.

2 OJ C […], […] 2003, p. […].

(1) On 10 January 2005 the Commission received notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 ("the Merger Regulation").[3] According to the notification, the following is proposed: the company Siemens Österreich AG ("Siemens Österreich", Austria), which is controlled by Siemens AG ("Siemens", Germany), is to gain control, within the meaning of Article 3(1)(b) of the Merger Regulation, of the company VA Tech AG ("VA Tech", Austria) by a public takeover bid made on 10 December 2004.

(2) The Commission concluded that the notified concentration fell within the scope of the Merger Regulation and took the preliminary view that it raised serious doubts as to its compatibility with the common market and the European Economic Area. It therefore adopted on 14 February 2005 a decision pursuant to Article 6(1)(c) of the Merger Regulation initiating Phase II proceedings for examination of the notified proposal.

(3) On 22 April 2005 the Commission sent a statement of objections to the notifying parties in which it found that, as a preliminary assessment and on the basis of the information so far available to the Commission, the notified proposal was incompatible with the common market

(4) Siemens replied to the statement of objections in a written statement submitted on 6 May 2005. In a written statement submitted on 25 May 2005, Siemens offered commitments designed to remove any existing competition concerns.

(5) The Commission has now come to the conclusion that, in its notified form, the proposal is liable to significantly impede effective competition in a substantial part of the common market, in particular as a result of the creation of a dominant position. However, the commitments given by the parties allow the competition concerns regarding the concentration to be dispelled. This Decision is issued pursuant to Article 8(2) of the Merger Regulation.

I. THE PARTIES

(6) Siemens supplies products and services worldwide in various areas of industry and electrical engineering. Its areas of activity include plants for power generation, transmission and distribution, automation and traction technology, plant engineering and construction, technical services, traffic engineering, building services engineering and information technology.

(7) In the area of equipping hydroelectric power stations, Siemens is working on a joint venture ("JV") with the company J.M. Voith AG (Heidenheim, Germany), in which Siemens holds 35% of the shares and has joint control. […]* The Commission's competition assessment rests on the same basis, but it would not change fundamentally if, hypothetically, the concentration were only to lead to Siemens acquiring a majority holding in VA Tech and continuing the JV separately with

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3 OJ L 24, 29.1.2004, p. 1.

* Parts of this text have been edited to ensure that confidential information is not disclosed; those parts are enclosed in square brackets and marked with an asterisk.

Voith. Only the extent, but not the existence, of the effects to be expected from the concentration might possibly change as a result.

(8) Through various subsidiaries, VA Tech is active in the areas of power generation (hydroelectric power stations and fossil fuel power stations), power transmission and distribution, metallurgy engineering, infrastructure (in particular building infrastructure), rail traffic technology and electrical plant engineering.

II. THE PROPOSAL

(9) The object of the notification is the proposal by Siemens, through a public bid by its subsidiary Siemens Österreich, to increase an existing holding in VA Tech from 16.45% of the voting rights to at least 50% plus one share and so to acquire sole control. […]*[4]

III. CONCENTRATION

(10) The proposal is a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

IV. COMMUNITY DIMENSION

(11) The companies involved achieve a combined aggregate worldwide turnover of more than EUR 5 billion.[5] (Siemens: EUR 74 billion in the financial year from 1 October 2002 to 30 September 2003; VA Tech: EUR 3.9 billion in the financial year 2003). Siemens and VA Tech each have an aggregate Community-wide turnover of more than EUR 250 million […]*. Neither of the companies achieved more than two thirds of its aggregate Community-wide turnover within one and the same Member State. The notified concentration therefore has a Community dimension within the meaning of Article 1(2) of the Merger Regulation. The proposal constitutes a case of cooperation with the EFTA Surveillance Authority under Article 57 of the EEA Agreement.

V. COMPETITION ASSESSMENT

(12) The proposed concentration leads to numerous horizontal overlaps and vertical links, in particular in the following areas: A. Power generation (equipping hydroelectric power stations and gas-and-steam power stations); B. Power transmission and distribution; C. Rail; D. Frequency Inverters,; E. Metallurgy and Other Industrial Plant Building; F. Low Voltage Switchgear; G. Building technology; and H.Infrastructure Facilities and Cable Ropeway Electrics, I. Other IT-Services

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4 […]*

5 The turnover calculation is made on the basis of Article 5(1) of the Merger Regulation and the Commission notice on calculation of turnover (OJ C 66, 2 March 1998, p. 25).

A. POWER GENERATION

A1. EQUIPMENT FOR HYDROELECTRIC POWER STATIONS

1. Relevant product market

(13) Siemens says that the equipping of hydroelectric power stations is a product market in its own right and that further segmentation, e.g. into electrical and mechanical engineering, is not necessary. The product market proposed by Siemens accordingly comprises all the mechanical and electrical components of a power station, such as water turbines, generators, instrumentation and controls, hydraulic control systems, pump turbines, valves, etc. The construction work (e.g. the dam), on the other hand, would belong to a separate product market, in which neither Siemens nor VA Tech is active.

(14) According to Siemens, the fact that, on the supplier side, most competitors can offer both mechanical and electrical engineering, as well as a trend also evident in Europe towards joint tenders for both groups of components, indicate such a broad product market definition. In this connection, the notifying party refers to several concentrations between manufacturers of mechanical equipment and electrical manufacturers in recent years, including Alstom/ABB, GE Hydro/Kvaerner and VA Tech/Sulzer as well as the joint venture between Siemens and the mechanical manufacturer J.M. Voith AG. To this extent, in Siemens' opinion, the market conditions since the Commission Decision in Voith/Siemens/JV (M.1793) have changed.

(15) The Commission's market investigation confirmed that the main suppliers of hydroelectric power stations in the EEA, including Voith Siemens, VA Tech, Alstom, and GE Hydro, can supply both mechanical and electrical components, even if market presence and reputation with customers are not the same for both areas in each case. The companies' product range includes in particular water turbines and hydrogenerators as well as other mechanical and electrical components, the "mechanical balance of plant" ("MboP") and the "electrical balance of plant ("EboP"). It is not possible to confirm whether the Asian suppliers (from China, India and Japan) are also active in the various areas because, at present, they are not perceived as credible suppliers in the EEA by the customers questioned in the market investigation. Nor have they so far taken part in any tenders in the EEA (see Part VI).

(16) The market investigation also shows that the scale of the product packages jointly sought in tenders for hydroelectric power stations varies enormously. There are both tenders for total equipment (mechanical and electrical) and tenders for individual components. The latter is particularly the case in modernisation projects, which account for a large share of demand in the EEA. Here tenders often relate to only

parts of the mechanical or electrical equipment.[6] From the point of view of demand, the various hydroelectric power station components are not substitutable.[7]

(17) On the other hand, the supply-side substitutability cited by the parties leads to the conclusion that the relevant product market covers the equipping of hydroelectric power stations (without any distinction as between mechanical and electrical equipment) since the main competitors listed by Siemens, in so far as they are active in the EEA, have confirmed that they are active in both mechanical engineering and in electrical engineering as well as in MBoP/EBoP.[8]

(18) Furthermore, hydroelectric power stations vary considerably in size. For example, water turbines are supplied with an output ranging from less than one megawatt up to an output of approximately 700 MW. A number of smaller local suppliers are active mainly in the area of small hydroelectric power stations ("compact hydro" or "small hydro").[9] Some of these companies only have an annual turnover of less than €10 million. The hydroelectric power station components in the compact hydro sector are much more standardised and, from the point of view of demand, cannot be substituted with larger components. However, hydroelectric power station equipment is offered in a continuum of output levels, without there being any obvious dividing line. For organisational purposes, VA Tech Hydro[10] classes installations up to 15 MW as belonging to the compact hydro area of the business.[11] The reason given for this classification is, among other things, that some national tax incentive programmes are limited to installations under 15 MW. Furthermore, these are standardised and modularised products which can be used on the market for smaller installations.[12] Other market participants have suggested lower output levels for a delimitation of the small hydro segment. The German law on renewable energies (in contrast to other national programmes) currently limits the tax incentive to 5 MW installations.[13]

(19) Together with the lack of a clearly definable dividing line for a possible distinction between size classes, the following additional characteristics of the hydroelectric power market in the EEA lead to the conclusion that subdivision into different product markets on this basis would not be appropriate. The dividing line is further blurred by the fact that in the EEA most tenders relate to the replacement, modernisation or refurbishment of power station components. Smaller competitors sometimes offer refurbishment work on larger installations, whereas larger suppliers also offer their services for very small tenders for projects of less than EUR 1 million.[14] Given these supply-side factors, a subdivision of the market for the

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6 See, for example, the comments of Norsk Hydro (a Norwegian customer) on possible tendering strategies (#1973).

7 For example, turbine versus generator, piping versus electrical components. The fact that these products cannot be substituted for each other but are at most complementary products, should not need any further explanation.

8 See competitors' replies to the Commission's market survey and customers' replies, described in further detail in Section 3.

9 Including Andino, Kössler, Wasserkraft Volk, Gugler, Gilkes and Andritz.

10 In VA Tech Hydro GmbH, VA Tech's hydroelectric and "combined cycle" activities are combined.

11 2003 Annual Report of VA Tech Hydro, p. 4.

12 See VA Tech's reply to question 3 of the request for information "Questions to VA Tech, 17.3.2005".

13 See HydroWorld Alert, 1.12.2003, p. 7, submitted by Siemens in document #6661.

14 See Siemens' bidding lists.

equipping of hydroelectric power stations into different size classes is not necessary in this case.

(20) As suggested by Siemens, the relevant product market therefore covers the equipping of hydroelectric power stations. As explained in paragraphs 16 to 19, the products in this market are characterised by considerable product differentiation.

2. Relevant geographic market

(21) Siemens is of the opinion that the market in hydroelectric power station equipment is a worldwide market as all the main suppliers are active worldwide and "only rarely" do national preferences still exist. Even suppliers which had so far only been active regionally (including the Chinese suppliers Dongfang and Harbin, the Indian BHEL or Japanese firms) had in the meantime been making advances worldwide. For example, among other things, the Chinese supplier Sichuan Electricity had been awarded a project in Georgia. Furthermore, Siemens says in the notification (pp. 27/28) that price formation for hydroelectric power equipment takes place worldwide, that worldwide price competition is "enormous", that "regional price differences are hardly noticeable" and that there are no "major cost-related trade barriers". It also points out that its own hydroelectric power business (Voith Siemens) alone has production capacities outside the EEA, in China and Brazil. The market data submitted by Siemens indicate that some [5-10]*% of the worldwide turnover in hydroelectric power equipment comes from the EEA.

(22) So far the Commission has examined the market in equipping hydroelectric power stations only for the purpose of clearance decisions pursuant to Article 6(1)(b) of the Merger Regulation. In case COMP/M.1793 - Voith/Siemens, the parties argued that the market was worldwide or at least EEA-wide, but that for maintenance work it was only EEA-wide. In that case, however, the relevant geographic markets did not need to be delineated further because in all alternative geographic markets examined effective competition would not have been significantly impeded in either the EEA or in a substantial part thereof.

(23) The concentration in the case COMP/M.1484 - Alstom/ABB related to different types of power generation equipment, in particular for gas and gas-and-steam power stations. Hydroelectric power components played a subordinate role. The parties had argued in favour of a worldwide market, using the following arguments: "According to the parties the relevant geographic market for all affected product markets is the world for the following reasons: the major players in the power generation equipment industry (i.e. GE (US), Mitsubishi ("MHI") (Japan), Siemens (D)/Westinghouse (US) and ABB and ALSTOM), bid for all the major contracts in the world regardless of the location of the customer and do win bids in all of these areas. This worldwide tendering has resulted in worldwide price convergence for steam turbines and a substantial degree of worldwide price convergence for gas turbines."[15] In this case too, the Commission ultimately left the geographic market definition open as there were no concerns about competition regardless of whether an EEA-wide or a worldwide market definition was applied. The hypothesis put forward by the parties in the Alstom/ABB case that in a world market all major

15 COMP/M.1484 - Alstom/ABB, paragraph 32.

competitors take part in tenders worldwide and also win them, as well as the question of price convergence will, however, also be examined below.

(24) In the present case, the Commission's market investigation confirms that the leading suppliers in the market in hydroelectric power station equipment in the EEA (Voith Siemens, VA Tech, Alstom and GE Hydro) are active worldwide, even if they focus on certain main geographical areas. Siemens, Alstom and GE in particular have considerable production capacities outside the EEA. […]*[16] [17]

(25) The competitor analysis contained in the internal documents submitted by Voith Siemens also confirms the Commission's observation[18] that the main geographical areas in which Siemens, VA Tech, Alstom and GE Hydro are active are supported by a local presence with service offices or even production plants. […]*[19] GE Hydro is similarly successful particularly in the regions (e.g. North America and Scandinavia) where it is represented by production plants and/or service offices. Alstom has production facilities in France and in China and Brazil.[20]

(26) Therefore, even if the main competitors listed by Siemens with a base in Europe are active to varying degrees on the world market, the EEA market differs from other parts of the world in that the Asian suppliers named by Siemens have so far not entered the EEA as credible bidders and so far have not won any projects here either. Similarly, the Asian competitors cited by the parties are not perceived as being potential suppliers by the customers questioned in the market investigation.[21] The argument put forward by the parties that there are worldwide tendering procedures in the hydroelectric power market does not alter this. The fact that firms from other geographical areas which are less highly regarded by or unknown to customers could theoretically take part in tenders does not in itself alter the fact that a small but significant non-temporary price rise by a hypothetical monopoly-holder in the EEA would be profitable. In addition to this, the competitors would also have to be in a position to offer sufficiently close substitutes quickly, without significant sunk costs arising. Particular importance also attaches to being able to cite references from successfully completed projects, such references being necessary to allow firms to position themselves as credible suppliers. The absence from the EEA of the competitors listed by the parties as well as the clearly lower regard in which they are held by customers in the EEA[22] indicates that there is not a uniform world market in hydroelectric power station equipment.

(27) Accordingly, the observed market shares of European companies in Europe do not, as argued by the parties in response to the decision pursuant to Article 6(1)(c) of the Merger Regulation, result only from past history, but also from the customers' structure of preferences (see also Part VI) and from the ability of the suppliers to supply products tailored to the needs of the customer and, where necessary, to provide rapid support through customer service.

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16 […]*

17 […]*

18 For example, on the basis of the bidding lists (see also section 3 below).

19 […]*

20 According to notification (p. 28).

21 See evaluation of customers' responses to the Commission's market investigation in section 3 below.

22 Ditto.

(28) In response to the Commission's enquiry as to any activities of new non-European competitors in the EEA,[23] Siemens was unable to provide any relevant evidence. In the analysis, a distinction must in any case be made between belonging to a *relevant market* and *potential competition* through market entry. In terms of content, the parties' arguments seem to be geared more to market entry but, even against this background, appear speculative as they are neither substantiated by the parties nor confirmed by the market investigation.

(29) As for the argument put forward in the reply to the Commission's decision pursuant to Article 6(1)(c) of the Merger Regulation that, in the case of hydroelectric power station equipment, "worldwide homogeneous pricing or the presence of a correlation of price changes" was evident, Siemens put it down to demand. […]*[24]

(30) […]*[25] [26] [27] If a single world market did in fact exist, it would be expected that Chinese suppliers would have endeavoured in 2001 and 2002 to win orders from European customers in order to take advantage of the - from their point of view - attractive price levels in the EEA. In fact, however, nothing points to any participation of Chinese companies in tenders for hydroelectric power station equipment in the EEA. The same applies to companies from other regions of the world (including other Asian countries), in so far as they are not already active in the EEA. Nor is the reference by the parties to two fairly large hydroelectric power projects by Dongfang in Albania in the 1960s and 1970s convincing in this respect.[28]

(31) […]*[29] [30] [31]

(32) Both from the examination of the current market structure and from the replies of competitors and customers to the Commission's market survey (outlined in section 3) […]*, it therefore transpires that customers for hydroelectric power station equipment in the EEA see themselves faced with a different supplier structure than customers in other parts of the world and that potential market power in the EEA would in particular not be eliminated by the presence of suppliers in China, India or other parts of the world.[32] The relevant geographic market does not therefore extend beyond the EEA.

3. Competition assessment

(a) Market shares

(33) In the notification, Siemens estimated its own market share as well as those of VA Tech and the other competitors (see the following table). It suggested here that the market shares should be considered cumulatively over a period of five years (2000 to

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23 See question 1 of the request for information of 10.3.2005.
24 […]*
25 […]*
26 […]*
27 […]*
28 See reply to the request for information of 10.3.2005, Annex 1b.
29 […]*
30 […]*
31 […]*
32 See also paragraph 9 of the Commission's notice on the definition of the relevant market.

2004) as they vary widely from year to year. For a number of years, according to its own information, Voith Siemens made no sales in the EEA.

Equipment for hydro power stations: data provided by Siemens in the notification

EEA market shares (%) 2000-04	**Equipment total**
	Value (EUR)
	1999-2004
Voith Siemens	[20-30]*
VA Tech	[20-30]*
Total	[40-50]*
Alstom	[10-15]*
GE Hydro	[10-15]*
Ansaldo/Franco Tosi	[<2]*
Andritz	[<2]*
Others	[30-40]*

Source: Siemens in the notification.

(34) VA Tech, by contrast, puts Siemens' and VA Tech's joint share of the market at [40-50]*% (Voith Siemens [10-15]*%, VA Tech [30-40]*%, Alstom [15-20]*%, GE Hydro [15-20]*%, Others [20-30]*%).[33] Alstom estimates that Siemens/VA Tech would jointly account for 61% of EEA sales of hydroturbines. In the case of electrical equipment, it estimates Siemens'/VA Tech's share of EEA-wide sales as being 43%.[34] The market share estimates of the other competitors and customers are generally within the same range, even if the estimates of smaller competitors in particular show fluctuations in both directions. For example, Andino estimates Siemens' and VA Tech's joint market share at 70%,[35] while Andritz puts it at only 41%.[36]

(35) On the basis of turnover figures for the competitors listed by Siemens, the Commission has carried out its own market share calculations. If one accepts here the volume of the turnover not attributed by Siemens to any competitor ("Others"), the market shares are as follows:

EEA 2000-04	€ million	Market share(%)
Siemens	[…]*	[10-20]*%
VA Tech	(*)	[30-40]*%
Combined	(*)	[…]***%**
Alstom	(*)	[20-30]*%
GE Hydro	(*)]	[0-10]*%
Ansaldo	(*)	[<1]*%
Andritz	(*)	[<1]*%
Others	[…]*	[20-30]*%
Sum	(*)	100%

Source: Calculations by the Commission.
(*)These turnover figures are business secrets of the individual firms.

33 See VA Tech's reply to question 35 of the "Questionnaire to Competitors - Power Generation".
34 See Alstom's reply to question 35 of the "Questionnaire to Competitors - Power Generation" (#3680).
35 See Andino's reply to question 35 of the "Questionnaire to Competitors - Power Generation" (#1310).
36 See Andritz's reply to question 35 of the "Questionnaire to Competitors - Power Generation" (#1324).

(36) From the turnover figures for competitors compiled by the Commission, just as in the case of the VA Tech estimate, it can be seen that Siemens has overestimated its own market share but underestimated that of VA Tech. Alstom achieves much higher market shares, while GE's market share is lower than that estimated by Siemens.

(37) The notified concentration would therefore bring together two of the leading suppliers of hydroelectric power plant equipment. Voith Siemens/VA Tech would increase their market leadership considerably over the remaining competitors Alstom and GE. [20-30]*% of the market is not attributed to any competitor or is accounted for by very small suppliers or suppliers which supply only certain EboP components or services but are not active in the core areas of hydroelectric power.[37]

(38) Siemens argues[38] that, in the case of hydroelectric power plant equipment a competitive bidding market is involved and that market shares therefore "tell us very little". It quotes here from the Commission's decisions in Framatome/Siemens[39] and Siemens/Alstom Gas[40] as well as from the US Horizontal Merger Guidelines. The passages quoted indicate that (in view of the market strength given) market shares in competitive bidding markets must be treated with caution where orders are only rarely awarded. Furthermore, reference is also made to the number of credible suppliers for competition in a competitive bidding market. The passage quoted from the US Merger Guidelines is as follows: "Where all firms have, on a forward-looking basis, an equal likelihood of securing sales, the Agency will assign equal market shares." In the present case, however, it is neither a question of orders rarely being awarded, nor does anything indicate that there is an equally great probability of all the competitors named by the parties being awarded future tenders.

(39) It should be noted that the fact that there is bidding on a market does not in itself allow any conclusion to be drawn as to the intensity of competition to be expected or as to the significance of market shares as an indicator of possible market power. The key factor is rather the bidding pattern in individual cases. For example, even where there is a small number of credible bidders, particularly intensive competition is to be expected if, in a bidding market, a large proportion of tenders is awarded in a few, large transactions and the products of the various competitors and their cost structure are largely homogeneous. In this and similar cases, market shares would, in practice, provide very little information on the possible market power of a bidder. The following remarks show, however, that the sources cited by the parties for the market for hydroelectric power plant equipment are not relevant.

(40) Even if, in the market for hydroelectric power plant equipment there is a bidding market, various factors lead to the conclusion that the market shares of the various competitors in the current case do nevertheless say a great deal about their market strength. In particular, there are frequent tenders, often of a very small size. Only […]* of the […]* tenders submitted by Siemens had an order size of more than EUR […]*. As described in the notification (see *inter alia* p. 66), what is involved in

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37 These also include in particular ABB, which, according to Siemens' bidding data, regularly takes part in tenders in the EboP area but otherwise does not produce either hydroturbines or generators.

38 In its reply to the Commission's Article 6(1)(c) decision.

39 COMP/M.1940.

40 COMP/M.3148.

the case of hydroelectric power plant equipment are individual components which are customised to suit the order in question. The heterogeneity of the products supplied by different manufacturers, the large variety of different components and the varying esteem in which the competitors are held by different customers (see below) show that the market is characterised by clear product differentiation.

(41) For larger projects there is also *ex ante* uncertainty about the actual profitability of a project for the winner of an invitation to tender as the exact costs are subject to certain technical and legal imponderables.[41] In a tender, therefore, the expected value of the lowest bid rises if the number of credible bidders goes down.

(42) The market shares of Siemens, VA Tech and their competitors are consequently the result of over […]* real purchasing decisions by many customers over the five-year period in question. They also reflect the decisions of competitors to make a bid for a certain tender. Assuming maximisation of profit, the decision of whether to make a bid or not is based on a weighing-up of the costs which would be incurred and the probability of having a real chance with a given customer.[42] In view of the large number of tenders, it must be assumed that the market structure observed did not come about by chance but is the result of the product portfolios offered by the different manufacturers, their installed base, their cost structure and similar differentiation features, as well as customer preferences. The market shares therefore contain considerable information about the market strength of the different suppliers, i.e. their ability to take part successfully in future tenders as credible bidders.

(43) Consequently, the high joint market shares of Voith Siemens and VA Tech, as well as the wide gap between them and the only significant remaining competitors, Alstom and GE, already suggest that the notified concentration is likely to lead to a considerable lessening of effective competition in the common market (dominant position of Siemens/VA Tech). The number of credible suppliers would be reduced from four to three. This assessment is not weakened but, on the contrary, reinforced by the concerns voiced by numerous customers and competitors that the concentration would lead to a lessening of competition, as well as well as by the analysis of the tendering data submitted by Siemens, VA Tech, Alstom and GE Hydro.

(b) Market investigation and internal documents

(44) The following were contacted for the market investigation: the customers in the EEA named by Siemens in the notification, the competitors named by Siemens, the customers named by VA Tech and the 50 largest hydroelectric power station operators in the EEA, this list also being compiled by Siemens. Of the latter, however, several said that they did not operate any hydroelectric power stations. Of the competitors outside Europe, only […]* replied. Both among those customers who replied and among the competitors a large number (and numerically a clear majority) expressed concerns that the notified concentration would lead either to "anti-competitive effects" or to higher prices. A number of customers and competitors said that they could not foresee the effects on competition or were not

41 See *inter alia* Alstom's reply to question 7 of the "Questionnaire to Competitors - Hydro Power".

42 […]* .

active in the hydroelectric power market. On the other hand, there were hardly any positive reactions.

(45) It is clear from the market investigation and from the internal documents of Voith Siemens and other competitors that Siemens, VA Tech, Alstom and GE Hydro are together perceived in the market as a group of competitors who clearly stand out from the other suppliers as regards product portfolio and market penetration. In the respective competitor analyses the other suppliers in the EEA are totally ignored. […]*[43]

(46) It was already clear from the answers to the Commission's questionnaires in Phase I that Siemens, VA Tech, Alstom and GE Hydro were viewed in the question on strengths and weaknesses[44] as being suppliers with the strongest product ranges while mainly attributes such as a lack of flexibility, high price and similar factors were deemed to be weaknesses. It was clear already from these replies that the other competitors were viewed as being much weaker or the relevant boxes were not filled in.

(47) The Phase II questionnaires were intended to quantify the market position of the individual competitors more accurately. The question to customers was:

"How would you rate the following suppliers of hydro power equipment, in terms of know-how and market penetration **relative to VA Tech**? Please use the following grading system:

[43] […]*.

[44] Question 37 of the "Questionnaire to Customers - Power Generation" and question 42 of the relevant competitor questionnaire.

+2 - This competitor is significantly stronger than VA Tech in this area.
+1 - This competitor is somewhat stronger than VA Tech in this area.
0 - This company is comparable to VA Tech in terms of know-how and market penetration.
-1 - This competitor is somewhat less strong than VA Tech in this area.
-2 - This competitor is significantly weaker than VA Tech in this area.

Competitor	Hydro power equipment generally	Hydro turbines	Hydro generators	Mechanical balance of plant (e.g. valves, gates, pipes etc.)	Electrical balance of plant (e.g. pumps, transformers etc.)	Services
Alstom						
Voith Siemens						
VA Tech						
GE Hydro						
Ansaldo						
Franco Tosi						
Andritz						
Andino						
Toshiba						
Hitachi						
Dongfang						
Harbin						
BHEL						
Any others:						

"

(48) The evaluation of the replies of the 25 customers who filled out the table produced the following result for "hydro equipment generally" (9 = do not know the competitor, no business relationship, no reply or something similar):

Customer assessment of competitors

Competitors	Hydro power equipment generally					
Assessment:	**2**	**1**	**0**	**-1**	**-2**	**9**
Alstom	4%	8%	56%	28%	0%	4%
Voith Siemens	8%	16%	52%	16%	0%	8%
VA Tech	0%	0%	100%	0%	0%	0%
GE Hydro	4%	12%	40%	20%	0%	24%
Ansaldo	0%	0%	4%	20%	4%	72%
Franco Tosi	0%	0%	0%	24%	4%	72%
Andritz	0%	0%	12%	16%	12%	60%
Andino	0%	4%	0%	12%	12%	72%
Toshiba	0%	0%	8%	8%	4%	80%
Hitachi	0%	0%	8%	8%	4%	80%
Dongfang	0%	0%	0%	4%	8%	88%
Harbin	0%	0%	0%	4%	8%	88%

BHEL	0%	0%	0%	4%	4%	92%

The evaluation of the table above shows first of all that all the respondents, as asked, gave their assessment relative to VA Tech (100% grade "0"). The assessment of Siemens, Alstom and GE Hydro is symmetrical to VA Tech, which means that approximately the same number of customers rate this competitor as being as strong or stronger/less strong. On average, Voith Siemens is rated slightly more highly than Alstom and GE Hydro. All other competitors are rated either very much lower or are unknown to the customers surveyed. The latter applies in particular to all non-European suppliers.

(49) An even more detailed evaluation of the data further reveals that, in the area of hydrogenerators, Alstom is considered to be the strongest supplier among the four market leaders, while Voith Siemens, followed by VA Tech, is given the highest ratings for turbines.[45] This customer assessment would be in line with Alstom's reply to the Commission's questionnaires, according to which Siemens and VA Tech had the leading hydroturbine technology. This result is obtained by aggregating the customer assessments. Although the evaluation also stands up to a sensitivity analysis regarding the method of aggregation,[46] because of the small number of customers on which it is based it can provide only indications. The one reliable result of the evaluation of the Phase II questionnaires remains the finding that Siemens, VA Tech, Alstom and GE Hydro form a leading group, from the point of view of customers, as regards know-how and market penetration and, as such, clearly stand out from all the other competitors. […]*

(50) The competitors' replies to the relevant question of the Phase II questionnaire come to the same result. However, a quantitative aggregation is not a straightforward matter here, as the assessments are in each case carried out in relation to the respondent's own company.[47] Reference is therefore made to the competitors' individual replies. However, the division between Voith Siemens, VA Tech, Alstom and GE Hydro, on the one hand, and the other competitors, on the other, is clear here too.

(c) Tendering data

(51) In a subsequent step the Commission analysed bidding lists submitted by Siemens, VA Tech, Alstom and GE Hydro in order to obtain further information about the closeness of the competitive relationship between Siemens, VA Tech and the other competitors. An examination of the market shares suggests that Siemens and VA Tech are frequently in competition with each other in tenders. If this were not the case, it might be that the two companies did not supply close substitutes, e.g. because they covered different segments of the market. This could lead to the conclusion that the market share addition observed exaggerates the actual effect on competition. The analysis is based on the assumption that companies take part in particular in those tenders which they think they have a chance of winning, e.g. because they are able to meet the tender specifications.

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45 See Excel tables prepared by the Commission "Siemens_Ranking by Customers".

46 Ditto: cf. working papers "Results, generators" and "Results, turbines".

47 The question put was: "How would you rate the following suppliers of hydro power equipment, in terms of know-how and market penetration **relative to your own company**?".

As participation in tenders involves costs, this hypothesis is consistent with the assumption of profit maximisation. […]*[48]

(52) Ideally, the bidding data should be evaluated on the basis of an aggregated list of all competitors. However, this was not possible for two reasons. In the first place, both VA Tech and also Alstom and GE Hydro class their bidding lists as being confidential. Secondly, it is not possible to assign the four bidders to a single bidding list in many cases. This is because the respective tenders appear in the various lists under different descriptions. Even the tendering date varies in most cases. Even when there are similar project names, it is often not clear whether the same tender is involved or different lots within the same project.

(53) The Commission therefore first analysed separately the bidding data submitted by Siemens. The Siemens data include […]* tenders, of which only […]* have a value of more than EUR […]* . Of these, participating competitors are named in […]* cases. This reveals the following:

Participation in tenders in the EEA (Siemens data)

Voith Siemens	VA Tech	Alstom	GE Hydro	Andritz	Kössler	F. Tosi	ABB	Others	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*
[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*	[…]*

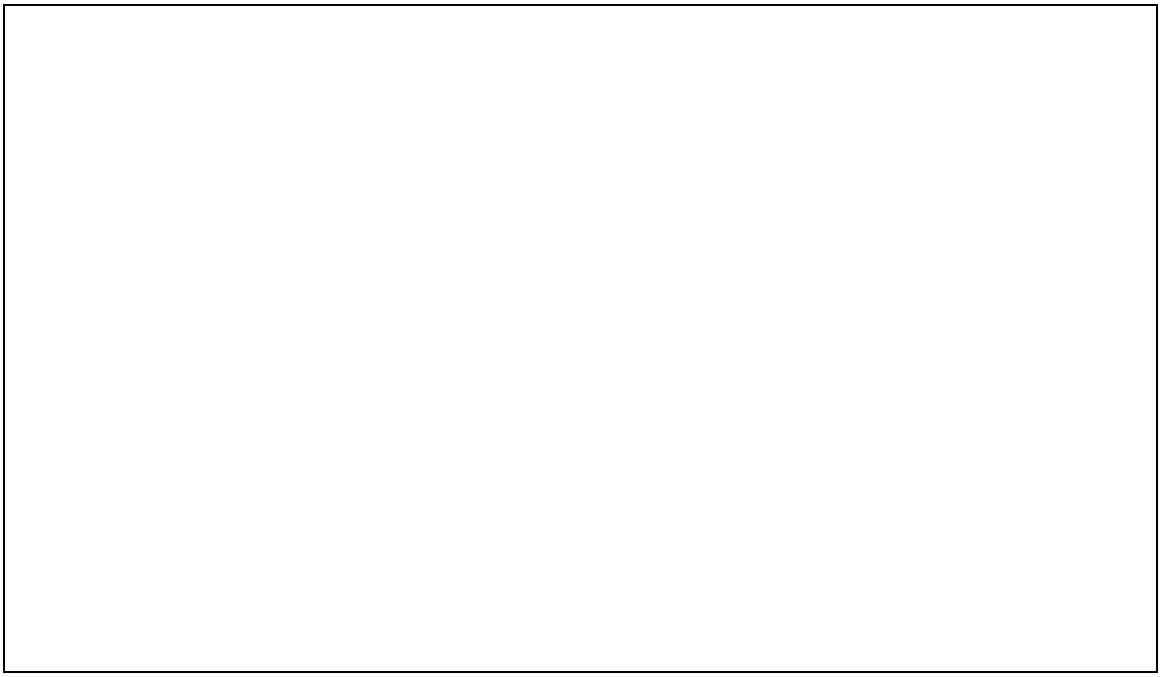
[…]*

(54) […]* The following chart compares the geographical profile of the four companies, with the names of the countries on the x-axis being removed for reasons of confidentiality. The y-axis shows the percentage of bids accounted for by each country.

Geographical profile of participation in tenders

[…]*

[48] […]*.



(55) The bidding data examined show that Siemens and VA Tech are the bidding companies which most frequently come into direct competition with each other. […]*GE Hydro is currently tending to reduce its presence in Europe.[49] With the notified concentration, Siemens would therefore take over its most direct competitor in the EEA.

(56) The evaluation of the replies to the Commission's requests for information and of the tender documents consequently confirms that the proposal would result in a significant impediment to competition, in particular as a result of the creation of a dominant position for Siemens.

(d) The parties' arguments (dynamic effects/potential competition)

(57) During the in-depth market investigation the Commission informed Siemens of the results of its findings, including at two discussions in Brussels on 23 March and 15 April 2005. In response to the first of these meetings, the parties submitted on 8 April 2005 a written pleading[50] in which they argued on the basis of dynamic aspects that, although the notified concentration did reveal a need for adjustment on the part of customers for equipment for hydroelectric power stations, the concentration would not result in a significant impediment to effective competition. Although the "dynamic process of worldwide consolidation" which was taking place meant inconvenience for customers since long-established supplier relationships would be affected, there were alternative suppliers which the customers could turn to at a reasonable cost. The written pleading was followed by the other documents of 12 April[51] (received by DG COMP on

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49 See e-mail from Scottish Southern of 11 April 2005 referring to the relocation of GE's hydro management centre from Oslo to Quebec, Canada, and the downgrade of its Doncaster (UK) site.

50 #6661.

51 #7020.

14 April) and of 13 April 2005[52] and, finally, by the parties' reply to the statement of objections, in all of which a similar line of argument is pursued.

(58) The alternative suppliers cited by the parties are mainly small suppliers from the small-hydro segment, service firms, manufacturers of small components (e.g. fittings or electrical parts) which can also be used in hydroelectric power stations, and smaller companies outside Europe. The firms listed in the written pleading of 12 April 2005 extend far beyond the companies identified as "competitors" in the notification. Siemens argues "that the majority of the orders awarded in Europe may involve a great many individual aspects of work from the area of modernisation and maintenance, for which, in turn, a great many suppliers are available." Siemens also says that: "Small specialised suppliers too are a competitive force in the market. As the procurement of equipment for hydroelectric power stations and also the awarding of maintenance and modernisation contracts take place as part of a tendering procedure, the very existence of the suppliers referred to here constitutes a 'credible threat' for companies such as Voith Siemens, Alstom, GE Hydro and VA Tech." The individual aspects of work are also specified in the written pleading. These include hydroelectric power station components such as turbine and generator parts as well as maintenance work such as checking for cracks, cleaning, replacing seals, total overhauls and similar activities.[53]

(59) […]*

(60) The documents submitted by the parties confirm the Commission's findings that in the market for hydroelectric power station equipment in the EEA, in addition to the four market leaders, there is also a fairly large number of small companies which provide the small-hydro segment with relatively standard products, as well as maintenance and service companies and small component manufacturers which are entrusted with the small projects described by the parties. The company Andino Hydropower, highlighted by the parties, is an example of this category of company. Andino's reply to the Commission's market survey in Phase I does not contain any business secrets and is therefore fully accessible to the parties.[54] The reply to the Phase II questionnaire is also partly accessible.[55] In 2004 the company had an annual turnover of EUR […]*. In the period 2000-04 the EEA market share was [less than 1]*%. True, there is nothing to suggest that Andino is not a successful supplier of hydroelectric power products, in particular in the small-hydro segment. Andino itself says that its proximity to the customer and flexibility ("to travel with lighter baggage") is an advantage compared with VA Tech. But at the same time the company states: "Andino is simply a too small company for being considered as a competitor to the leading suppliers."

(61) The same applies to the other companies listed by Siemens as credible bidders, whose size in terms of turnover amounts to significantly less than 1% of Siemens/VA Tech. They would have to increase their turnover by a factor of 50-100 to match the order of magnitude of VA Tech. In order to do this, they would have to develop further the relevant product portfolio with references outside the small-hydro area.

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52 #6955.

53 #7020.

54 See Andino's reply to the questionnaire "Questionnaire to Customers - Power Generation", #1310.

55 See Andino's reply to the questionnaire "Questionnaire to Customers - Hydro Power", #4733.

(62) Nor, finally, is there any credibility in the argument put forward by the parties at various points that the notified concentration is part of a "dynamic process of the worldwide consolidation of manufacturers"[56] in which the European market (with a 10% share of the world market) is of negligible importance.[57] Apart from the fact that the relevance of this argument for the analysis of competition remains unclear, the concentration with VA Tech would eliminate a competitor which is mainly active in Europe and has a leading market position there. With the notified transaction Siemens would take over its most important competitor in the EEA.

(e) Conclusion

(63) To summarise, the high joint market shares of Siemens and VA Tech, the wide gap between them and the rest of the competitors, the elimination of a leading credible bidder in the market for hydroelectric power station equipment, the fact that the concentration would bring together two close, probably indeed the closest, competitors and the absence of credible potential competitors all point to the conclusion that the notified proposal would result in a significant impediment to effective competition in the common market through the creation of a dominant position for Siemens/VA Tech. These conclusions are based on the market information submitted by numerous customers and competitors as well as on the competition concerns voiced by them, the analysis of the tender data submitted by Voith Siemens, VA Tech, Alstom and GE Hydro, and internal documents of Voith Siemens.[58]

A2. EQUIPMENT FOR GAS-AND-STEAM POWER STATIONS

1. Relevant product markets

(64) In the area of equipment for fossil-fuel power stations, the activities of Siemens and VA Tech overlap only in the case of certain components for gas-and-steam power stations. VA Tech's product range here is much narrower than that of Siemens. VA Tech essentially supplies turnkey gas-and-steam power stations using mainly components supplied by third parties. VA Tech's turnkey supply is based on turbines supplied by GE as key components, which are combined with turbo generators from its own in-house production. As part of the cooperative arrangement, VA Tech also supplies generators to GE for projects being carried out by GE. Nor does VA Tech itself manufacture steam turbines and other power station components.

(65) Siemens therefore argues that the only market affected by the notified concentration is the market for turnkey gas-and-steam power plants. This involves integration and engineering services through which the numerous components of a power station are integrated to form a turnkey plant.

(66) The notifying party does not attribute any significant market shares to VA Tech for the GE turbines distributed by it (since the demand relates to GE turbines and not to supply by VA Tech), nor does VA Tech appear in Siemens' presentation as a market participant for generators (since these are supplied solely as part of turnkey projects

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56 Siemens' letter to the Commission of 8 April 2005, #6661.

57 See *inter alia* p. 26 of the notification.

58 These are supplemented by the confidential internal documents of other market participants, which are therefore not available to Siemens.

or through GE). Nevertheless, an objective market definition is proposed in the case of turbines on the basis of the Commission Decision in Siemens/Alstom Gas & Steam Turbines (M.3148). According to that decision, a separate market exists for large gas turbines with an output of over 60 MW. According to Siemens, all the turbines affected by the concentration belong to this market.

(67) The Commission's market investigation essentially confirmed Siemens' proposed market definition for turnkey gas-and-steam power plants.

(68) Siemens' proposed market definition for large gas turbines was also confirmed (although, in some cases, 50 MW was proposed as the lower limit). The basis for the subdivision is the observation that gas turbines with an output of under 60 MW (50 MW) derive from aircraft turbines. The question of whether the precise lower limit for large gas turbines should be 50 MW, 60 MW or another output level can be left open here since it does not affect the assessment of competition.

(69) Siemens does not give any more detailed definition of the generator market since it disputes that VA Tech is a market participant here. The market investigation indicates that, on the demand side at least, it might be necessary to draw a distinction between turbo generators for gas-and-steam power plants and other generators and possibly, in addition, to establish a subdivision by size category. Gas and steam turbo generators differ from other types of generator through their high turning speed, which requires a particular design. However, the market definition can be left open here since it does not affect the assessment of competition.

2. Relevant geographic markets

(70) For the definition of the relevant geographic markets, Siemens refers to the Commission Decision in Siemens/Alstom Gas & Steam Turbines (M.3148). In that case, the notifying party (Siemens) argued that the relevant geographic market was at least EEA-wide and indeed probably worldwide. The Commission did not have to examine the market definition any further in Siemens/Alstom and therefore left it open. In the present case, the definition of the relevant geographic markets can also be left open since it has no impact on the assessment of competition.

3. Competition assessment

(71) In the market for turnkey gas-and-steam power plants, the joint annual market share of Siemens and VA Tech in the EEA between 1999 and 2003 amounted, according to Siemens, to between [5-10]*% and [15-20]*%. Taking the period 1999-2003, the average combined market share was [10-15]*%, of which only [2-5]*% was accounted for by VA Tech. In the turnkey market, a number of suppliers would remain even after the notified merger. These include the turbine manufacturers Siemens (or Siemens/VA Tech), Alstom and Mitsubishi, but also engineering firms such as Bechtel and others, as well as the boiler manufacturer Foster & Wheeler. In the market for turnkey steam-and-gas power plants, the merger would not therefore, at horizontal level, give rise to any competition concerns.

(72) The Commission's market investigation confirmed that VA Tech operates as a turnkey supplier of gas-and-steam power plants on the basis of turbines made by GE and turbo generators from its own in-house production. It seems to be customary and technically necessary for gas turbines and turbo generators to be matched technically

to one another and supplied as a package. The market investigation also confirmed that VA Tech does not fundamentally operate separately as a supplier of generators but supplies them for turnkey projects, together with turbines made by GE. Horizontally, therefore, there is no addition of market shares in the case of generators.

(73) VA Tech does not manufacture gas turbines. Horizontally, therefore, there would be no overlaps here. The merger as notified would deprive GE, the world market leader for gas turbines, of a sales channel for these products in the form of VA Tech. GE (like Siemens, Alstom and Mitsubishi) also has its own generator production capacities. Given the role of gas turbines as key components in gas-and-steam power plants and given GE's leading market position in that area, it appears unlikely that GE would, as a result of the notified concentration, be deprived of access to the gas turbine market, nor did GE itself express any concerns in this respect in the market investigation.

(74) Accordingly, the notified transaction does not, in the area of equipment for gas-and-steam power plants, result either horizontally or vertically in a significant impediment to effective competition in the common market or in a substantial part thereof.

B. POWER TRANSMISSION AND DISTRIBUTION ("T&D")

1. Relevant product markets

(75) Like power generation equipment, the T&D market comprises a wide range of different components that are supplied individually or integrated into a system. Customers are mainly national grid operators and local/regional electricity distributors. In the T&D area too, Siemens has a wider range of component manufacture than VA Tech, which, in the case of turnkey projects, relies more heavily on external suppliers.

(76) On the basis of the horizontal overlaps in the product range, Siemens proposes that relevant product markets be defined on the basis of the product groups listed under (a) to (e) below. According to Siemens, the area of energy automation and information systems forms an exception, with power system management and protective relays each constituting a separate market.

(a) High-voltage products (for transmission networks operating at voltages between 52 kV and 800 kV)
(i) air-insulated switchgear
(ii) gas-insulated switchgear
(iii) circuit breakers
(iv) disconnectors
(v) instrument transformers
(vi) coils

(b) Transformers
(i) power transformers
(ii) distribution transformers

(c) Energy automation and information systems

(i) power station management
(ii) protective relays

(d) Turnkey projects
(i) high-voltage projects
(ii) medium-voltage projects

(e) T&D services
(i) asset services
(ii) network planning

(77) The market investigation largely confirmed the structuring of T&D markets proposed by Siemens (on the basis of the Commission Decision in Areva/Alstom (M.3296)). However, the market investigation also showed that T&D products are not only demanded as turnkey projects but that in the case of many customers there is also a demand for individual components. Purchasing policy is essentially customer-specific. Large national grid operators in particular have their own project management skills and undertake the integration of individual components themselves. Other companies have shed such activities and their demand relates mainly to turnkey projects. Market transactions therefore exist both for turnkey projects and for individual components (as regards the latter, both between component manufacturers and customers and between component manufacturers and turnkey integrators).

(78) Since the structure of suppliers differs distinctly as between the individual components and since the various components are not substitutable, relevant product markets could exist both in the turnkey area and also at the level of the individual components. The product groups identified in paragraph (76) under (a) to (e) as (i) to (vi) would thus represent possible separate relevant product markets. This analysis was only partly confirmed by the market participants surveyed. Some customers and competitors stated in their answer to the relevant question that a market definition in terms of the general product groups was sufficient. This assessment seemed, however, to be not always based on a competition-law analysis, but frequently on a technical classification. The precise product market definition can, however, be left open in this case since it does not affect the competition assessment.

(79) According to the Commission's enquiries, VA Tech, like Siemens, also operates in air-insulated and gas-insulated switchgear in the medium-voltage area, through its subsidiary Elin EBG. The question of whether each of these products constitutes a separate relevant product market or forms part of a wider market for MV products as a whole (similar to the overall market for HV products proposed by Siemens) can also be left open here. Whatever the relevant product market definition, the merger does not give rise to any competition concerns in this area too, which as a much less concentrated market structure than the HV sector.

2. Relevant geographic markets

(80) Siemens argues that the relevant geographic markets in the T&D area are to be defined "after the liberalisation of energy markets as at least EEA-wide and in part possibly even worldwide". It states that there are international tenders for T&D projects in which "the traditional 'home advantage' of domestic suppliers scarcely plays any role". Furthermore, it argues, transport costs are small, international trade

is intensive, there are globally active suppliers and technical standards, and customers' internal certification procedures no longer represent significant trade barriers.

(81) The market investigation indicates that national grid operators have indeed increasingly opened up to supplies from outside their traditional group of suppliers. Technical standards seem no longer to pose any significant trade barrier, and internal certification procedures too are ultimately in the hands of the customer. This applies in particular to the high-voltage area, which is the area in which the parties' activities mainly overlap and in which projects are, in any case, significantly customised. However, a local presence in the country of the relevant customer seems to continue to play a role in the case of national grid operators when awarding contracts. Suppliers that do not have any production capacity in the EEA (e.g. those from Japan) seem not so far to have bid to any significant extent for T&D projects in the EEA, even in cases in which they were encouraged to do so.

(82) In so far as national differences continue to exist in the structure of supply and demand in the T&D markets, they are attributable essentially to the purchasing policy of a few large customers. In France in particular, EdF seems in some product markets to continue to be inclined to purchase from national suppliers. The main producers of T&D products are, however, all active throughout the EEA, a fact reflected both in participation in tenders and in successful bids. Consequently, the T&D markets are EEA-wide.

3. Competition assessment

(a) Market structure

(83) In the T&D area, according to the information provided by the notifying party, the activities of Siemens and VA Tech overlap in the areas set out in the following table. On the basis of the data contained in the notification, the market shares are as follows:

EEA market shares 2003 (%, value)

Product	Siemens	VA Tech	Combined	Main competitors
a. High-voltage products	[15-20]*	[5-10]*	[20-30]*	Areva [15-20]*, ABB [15-20]*
(i) Air-insulated switchgear	[5-10]*	[5-10]*	[15-20]*	Areva [10-15]*;AAB [5-10]*Cegelec [5-10]*, EFACEC [5-10]*
(ii) gas-insulated switchgear	[30-40]*	[10-15]*	[40-50]*	ABB [30-40]*, Areva [20-30]*
(iii) circuit breakers	[30-40]*	[5-10]*	[40-50]*	Areva [30-40]*, ABB [20-30]*
(iv) disconnectors	[30-40]*	[20-30]*(*)	[30-40]*/ [50-60]*	Areva [20-30]*, HAPAM [10-15]*
(v) instrument transformers	[10-15]*	[5-10]*	[15-20]*	Areva [20-25]*, ABB [10-15]*, Ritz [10-15]*, Arteche [10-15]*, Pfiffner [0-10]*
(vi) coils	[20-30]*	[10-15]*	[30-40]*	Areva [20-30]*, ABB [15-25]*, Trafomec [5-10]*
b. Transformers	[10-15]*	[5-10]*	[20-30]*	ABB [15-25]*, Areva [15-20]*, RWE Solutions

				[5-15]*, Schneider [0-10]*, Pauwels [0-10]*, others
(i) power transformers	[10-15]*	[10-15]*	[20-30]*	ABB [20-25]*, Areva [15-25]*, RWE Solutions [5-15]*, Pauwels [2-5]*, EFACEC [2-5]*, others
(ii) distribution transformers	[10-15]*	[2-5]*	[10-15]*	ABB[10-20]*,Schneider [5-15]*, RWE Solutions [5-15]*, Areva [5-15]*, Pauwels [5-10]*, others
c. Energy automation and information systems				
(i) power system management	[10-15]*	[10-15]*	[20-30]*	ABB [10-15]*, Areva [5-10]*, others (including various software companies)
(ii) protective relays	[20-30]*	[<2]*	[20-30]*	Areva [20-30]*, ABB [10-20]*, Schneider [0-10]*
d. Turnkey projects	[20-30]*	[2-5]*	[20-30]*	ABB [15-20]*, Areva [10-15]*, Cegelec [5-10]*
(i) high-voltage projects	[50-60]*	[10-15]*	[60-70]*	ABB [20-30]*, Areva [5-10]*
(ii) medium-voltage projects	[10-15]*	[<2]*	[10-15]*	ABB [15-20]*, Areva [15-20]*, Cegelec [10-15]*
e. T&D services	No affected markets on EEA or national basis			

[…]*(*)

(84) The market investigation confirmed that there are essentially four competitors (Siemens, VA Tech, ABB and Areva) which produce a comparably wide range of T&D components and operate as turnkey suppliers in high-voltage projects. […]*

(85) Several other competitors, including Cegelec, EFACEC, Ansaldo, HAPAM, Pauwels and others, cover only individual tentative product markets. They supply individual components either direct to final customers or as subcontractors to turnkey suppliers.

(86) On the basis of the product market definition proposed by Siemens and of the market share figures contained in the notification, the combined market share in high-voltage products, transformers, power system management and protective relays is always [20-30]*% or less. In the market for turnkey projects, the combined market share would be [20-30]*%. In each of these markets, even after the merger, four or more credible competitors would remain. The same applies to medium-voltage switchgear, where, in addition to Siemens, VA Tech, ABB and Areva, a number of other suppliers exist.

(87) On the basis of the tentative smaller product markets identified above (see section 1 on relevant markets), market shares are sometimes significantly higher. In the case of high-voltage turnkey projects, the combined EEA market share of Siemens and VA Tech in 2003 amounted to [60-70]*% (Siemens [50-60]*%, VA Tech [10-15]*%).

(88) The merger also leads to high market shares in a number of (tentative) component markets, particularly in the case of gas-insulated switchgear ([40-50]*% market

share), circuit breakers ([40-50]*%) and coils ([30-40]*%), with VA Tech in each case having a much smaller market share than Siemens. In the case of a separate market for disconnectors, Siemens would acquire the 40% (non-controlling) shareholding which VA Tech still holds in the business area otherwise sold to Southern Company.

(89) The customers and competitors surveyed in the market investigation confirmed the identity of the competitors listed by Siemens in the various product areas and their market shares, albeit with some differences in estimates of market shares. In particular, no other market participant estimated the market share of Siemens and VA Tech in the high-voltage turnkey area as high as Siemens itself […]*. This might be because the allocation of turnover to turnkey business (in contrast to the supply of the underlying components) is difficult at individual level and is handled differently by the market participants. As explained in paragraphs (93) to (95), however, market shares in the high-voltage turnkey market are of only minor importance for the competition assessment.

(b) Non-coordinated effects

(90) As in the hydro market, Siemens argues that market shares in the T&D markets do not provide any direct information on suppliers' market power because orders are awarded through tenders. It also argues that, in the wake of deregulation and privatisation in recent years, energy supply companies have developed a strong awareness of costs which is reflected in the demand that suppliers provide "massive" discounts.

(91) The Commission examined in particular the effects of the notified merger in the possible product markets for high-voltage turnkey projects, gas-insulated switchgear and circuit breakers as part of the more detailed market investigation. It should be borne in mind here that the horizontal overlaps between Siemens and VA Tech in the high-voltage turnkey market are, to a substantial extent, attributable to GIS-based turnkey substations. Circuit breakers are used as components *inter alia* in gas-insulated switchgear. The same applies to disconnectors, although these are comparatively less technology-intensive. These (tentative) product markets are therefore, to a significant extent, vertically linked, with Siemens, VA Tech, Areva and Alstom each being active at all three levels.

(92) Some of the customers and competitors surveyed in the market investigation expressed concern at the notified merger, although the proportion of negative reactions was much lower than, for example, in the case of hydropower (see Section A). Competition concerns expressed by the customers surveyed were based in particular on the observation that the transaction would eliminate a further credible competitor in an already highly consolidated market. The market investigation therefore focused on determining whether the high combined market shares of Siemens/VA Tech and the reduction in the number of credible bidders from four to three in some tentative product markets would result in a significant impediment to effective competition, in particular through the creation of a dominant position.

(93) In the (tentative) market for high-voltage turnkey projects in the EEA, Siemens already had a market share of [50-60]*% in 2003 alone. Together with VA Tech ([10-15]*%), the combined market share would have been [60-70]*%. The rest of

the market was divided between ABB ([20-30]*%) and Areva ([5-10]*%). However, the high-voltage turnkey market is heavily project-driven, and the bulk of turnover in a given year may be generated by a small number of large projects. Accordingly, the market shares of Siemens, VA Tech, ABB and Areva fluctuate widely over time. In the five-year period from 1999 to 2003, Siemens' market share fluctuated between [5-10]*% (2000) and [50-60]*% (2003). VA Tech's market share in the same period ranged between [<2]*% (1999) and [15-20]*% (2002). ABB and Areva accounted for the remaining market shares in each year. […]* It may be concluded from the wide fluctuations from year to year in market shares and the importance attaching to individual projects that the market for high-voltage turnkey projects is indeed a project-driven market in which the market shares of the individual competitors, in so far as they regularly take part credibly and successfully in tenders, cannot automatically be used to draw conclusions regarding their market power. Customers and competitors seem to perceive Siemens, ABB, Areva and VA Tech consistently as credible competitors who largely offer comparable products.

(94) Other competitors did not achieve any significant turnover in the EEA between 1999 and 2003. The Japanese suppliers Toshiba-Mitsubishi and JAEPS participated only in tenders in Iceland and Cyprus, although they were rated as competitive suppliers by several customers at product level. However, they do not seem to have participated in tenders in the EEA apart from Iceland and Cyprus even though there was customer encouragement.

(95) As an interim conclusion it may thus be said that the (tentative) market for high-voltage turnkey projects in the EEA is a highly project-driven market and that the notified merger would reduce the number of credible competitors in that market from four to three. Against this background, the merger could result in a significant impediment to effective competition especially if Siemens and VA Tech were rated by a substantial number of customers as first and second choice in their product preference or if the two companies were, because of their cost structure, particularly keen competitors against one another in tenders. The answers given by customers and competitors to the Commission's market survey did not provide any initial indications of any such scenario. Other indications might be provided by the bidding behaviour of Siemens and VA Tech.

(96) If, from the customers' point of view, Siemens and VA Tech supplied close substitutes compared with other competitors, the expectation would be that they would take part in a substantial number of tenders as competitors. […]* In nearly all of these tenders, ABB and/or Areva also submitted bids. ABB and then Areva are the companies which by far bid most frequently in direct competition with Siemens. […]*

(97) The same bidding analysis as for high-voltage turnkey projects was also carried out for gas-insulated switchgear and for circuit breakers. All the tenders identified by Siemens and, as far as possible, aligned with competitors' data for the period from 1999 to the beginning of 2005 were examined. […]* As previously, ABB and/or Areva also submitted bids in the case of gas-insulated switchgear and circuit breakers in almost every tender in which Siemens and VA Tech participated. ABB and then Areva are here once again and by a wide margin the companies bidding most frequently in direct competition with Siemens. As mentioned above, gas-insulated switchgear products form the basis of a substantial proportion of high-voltage turnkey projects.

(98) The Commission then went on to analyse the bids by Siemens, VA Tech, ABB and Areva in the […]* tenders for the period from 1999 to 2003 for gas-insulated switchgear and turnkey gas-insulated switchgear,[59] in which, according to their information, all four competitors participated. The aim was to ascertain whether Siemens and VA Tech possibly were the lowest and second-lowest bidders in a significant number of bidding situations and thus, being in competition, had a particularly marked influence on the transaction price. However, this hypothesis too could not be confirmed on the basis of the data.

(99) In the case of disconnectors and coils, the market investigation reached the same conclusion on the basis of more limited bidding data. In both (tentative) markets, compared with GIS and HV turnkey projects, there remains one other competitor. In the case of coils, this is Trafomec. In the case of disconnectors, the horizontal overlaps are confined to VA Tech's (non-controlling) […]*% shareholding in the business. In addition, compared with GIS and HV turnkey projects, the products are much more standardised.

(100) The Hungarian company Ganz-Transelektro has submitted several bids for GIS in the EEA since the country joined the European Union in May 2004 and has since won its first contract […]*. According to its own data, it is already active in other parts of the world, particularly the Middle East. By contrast, Japanese competitors still seem not to be engaging in competition in the EEA to any significant extent (with the exception of offshore islands such as Iceland and Cyprus).

(101) To summarise, the situation is as follows: because of their structure, the (tentative) markets for HV turnkey projects, GIS and circuit breakers could produce competitive market results in principle even with only three credible bidders offering close substitutes (and one possible potential competitor). Neither the market survey nor the bidding analysis allows the conclusion to be drawn that the notified merger would result in a significant impediment to effective competition, notably through the creation of a dominant position. This analysis relates to possible non-coordinated effects of the notified merger.

(c) Coordinated effects

(102) In addition, the elimination of a competitor from a market which, with only four suppliers, is already highly concentrated could allow the remaining firms to coordinate their competitive behaviour and thus, at the expense of their customers, achieve higher prices in tenders for HV turnkey projects, GIS and circuit breakers than in an independent submission of bids. Siemens/VA Tech, ABB and Areva would have to manage to find a coordination mechanism through which bids could be effectively coordinated. Deviations from the coordinated price would have to be evident to the other oligopolists and a credible deterrence mechanism would have to make any deviation unprofitable.[60]

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[59] As mentioned earlier, gas-insulated switchgear products form the basis of a large proportion of high-voltage turnkey projects. In the case of GIS projects, it is difficult in the case of some projects to allocate an individual price since the suppliers in some cases show the various components, services and options differently and separately. Other HV turnkey projects for which the various bids tended to be even more difficult to compare were therefore not included.

[60] See judgment of the Court of First Instance in Case T-342/99 *Airtours* v *Commission* 2002 ECR II-2585.

(103) Any tacit coordination of bid prices in the various tenders involves considerable difficulties. In particular, individual HV turnkey projects, GIS and circuit breakers differ widely in their technical complexity and hence also in their price since each project is customised to meet the relevant customer's requirements. The products are therefore characterised by considerable non-homogeneity, and the market is thus not very transparent.

(104) Nor is it possible from the market data and bidding data examined during the merger control procedure to identify any evidence of possible coordination mechanisms for behaviour in tenders. All four companies (Siemens, VA Tech, ABB and Areva) take part successfully in tenders practically throughout the entire EEA. The very complex coordination mechanism that would be necessary for coordinating competitive behaviour given the bidding pattern observed in this case would be difficult to maintain. There is no convincing evidence based on the data available of any coordination that already exists or would be brought about by the merger in the (tentative) markets for HV turnkey projects, GIS and circuit breakers.

(d) Conclusion

(105) It follows that, whatever the product market definition applied, the notified merger would not, in the T&D area, lead to the creation or reinforcement of a dominant position or result in any significant impediment to effective competition.

C. RAIL

C1. ROLLING STOCK

(106) The takeover of VA Tech by Siemens leads to overlaps in electrical traction systems for trams, underground trains, regional trains and electrical locomotives. In addition, vertically affected markets arise for trams, underground trains and electrical regional trains.

1. Relevant product markets

(a) Electrical traction systems for rail vehicles

(107) Hitherto the Commission has examined the market in electrical traction systems for rail vehicles only for the purpose of an authorisation decision under Article 6(1)(b) of the Merger Regulation. In the Alstom/Fiat Ferroviaria Decision,[61] a separate market was assumed for electrical traction, which was not, however, subdivided further. The drive train of an electrical rail vehicle essentially consists of four elements: the power converter, the traction engine, the transformer and the control system.

(108) Either the manufacturer of a rail vehicle can buy these components individually and integrate them into the train itself, i.e. it possesses system-integration skills; for the individual components, in particular the traction motor, there are several independent suppliers. Or the manufacturer can acquire the complete drive train

[61] See paragraph 31 of Commission Decision COMP/M.2069 Alstom/Fiat Ferroviaria of 18 September 2000.

from an electrical system integrator. Both Siemens and VA Tech's subsidiary Elin EBG Traction ("ETR") offer the construction and delivery of the complete drive train for the following four product groups: trams, underground trains, regional trains and locomotives. Suppliers of electrical traction also operate, as members of a consortium, under their own name in contacts with the customer, as in the case of the "Talgo 22" regional-train project.[62]

(109) Trams and underground trains obtain their power from a direct current network generally with 600 V to 750 V. Actual trains such as regional trains run on an alternating current network with higher voltages of up to 25 kV. From the point of view of customers, i.e. the non-integrated suppliers of rail vehicles, which manufacture only the mechanical part of a rail vehicle because of the different construction needed for the electrical traction of the various product groups such as trams, underground trains and regional trains, the tractions are not exchangeable.

(110) In its reply to the statement of objections, however, Siemens argued that all the main suppliers, in particular the large integrated suppliers, have a portfolio that covers all areas of traction from trams to high-speed trains. Furthermore, according to Siemens, the electrical systems for the individual product groups do not differ technologically. The independent suppliers such as ETR and Vossloh-Kiepe ("Kiepe"), by contrast, specialise in specific areas and are not in a position to extend their production within a brief period of time to traction for high-speed trains. For the purposes of this Decision, therefore, electrical traction systems for rail vehicles are subdivided by product group into separate markets.

(b) Rail rolling stock

(111) The market for electrical rail vehicles is downstream from the market for the electrical traction of rail vehicles. In the ABB/Daimler-Benz Decision,[63] the Commission subdivided the market for rail transport technology into five product groups (mainline trains, regional trains, local trains, wayside systems and miscellaneous), each of which contained the relevant individual product markets of electrical and diesel locomotives, electrical and diesel multiple units, passenger coaches and freight wagons, trams and underground trains, components, spare parts and maintenance. Trams, including urban railways, are sometimes referred to Light Rail Vehicles ("LRV").

(112) In subsequent decisions, the question of whether regional trains had to be subdivided into electrical motor-trains (EMUs) including diesel-electric motor-trains and diesel motor-trains (DMUs) was left open since such a subdivision was not relevant.[64]

(113) ETR manufactures only electrical traction systems and is a competitor with Siemens only in this area. ETR's product range includes electrical traction for trams, underground trains, regional trains and locomotives. The relevant product market can be left open for the locomotives sector as the competition assessment does not change even assuming a separate market for electrical locomotives. The same

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62 http://www.talgo.de/talgo22.htm.

63 See paragraph 9 of Commission Decision IV/M.580 ABB/Daimler Benz of 18 October 1995.

64 See paragraph 10 of Decision COMP/M.2139 Bombardier/ADtranz; even in ABB/Daimler Benz, this question was left open; see paragraph 75 of Commission Decision IV/M.580 ABB/Daimler Benz of 18 October 1995.

applies to regional trains, where the competition assessment does not change, even assuming a separate market for EMUs, including diesel-electric regional trains. This view is also taken by Siemens. Accordingly, for the purposes of this Decision, the relevant product markets are trams, including urban railways, underground trains, regional trains and locomotives, with the distinction in the case of locomotives between electrical and diesel traction being left open.

2. Relevant geographic markets

(a) Electrical traction systems for rail vehicles

(114) In its Decision in ABB/Daimler Benz the Commission assumed a national market for the electrical part at least in the case of Germany.[65] In the later decision in Alstom/Fiat Ferroviaria, however, an EEA-wide market for subsystems, in particular electrical traction, was assumed.[66] Siemens argues that a restriction to national markets is not appropriate. It argues that there are sufficient examples of the supplier of the electrical part not originating in the country of the customer purchasing the rail vehicle. A system integrator of electrical traction such as ETR delivered supplies to Spain, for example, without having production facilities there. The market investigation confirmed this definition of the EEA market in the present case. All manufacturers of rail vehicles in the EEA, independent suppliers of electrical traction and component manufacturers were surveyed as part of the investigation. Only two companies took the view that national markets were involved in some member countries, although they did not further substantiate this. The Commission therefore assumes an EEA-wide market for electrical traction for rail vehicles.

(b) Rail rolling stock

(115) In its decision-making practice to date, the Commission has accepted national markets for rail vehicles at least in those Member States in which there was a national supplier or national production capacity which met the demands of customers there. Germany, Belgium, France, Italy, the Netherlands, Sweden, Spain and Austria in particular were identified as national markets.[67] Other Member States, including Ireland and Greece, which do not have their own industry and therefore buy internationally, were included in a "rest of the EEA" market. In the present case there are horizontal overlaps or vertical links in Belgium, Germany, Austria, Poland, Spain and the Czech Republic, which all have their own production capacity.

(116) Siemens argued that in recent years there has been a trend towards a uniform European market on account of the European contract award directives. In spite of recognisable signs of continuing Europeanisation, however, the information available to the Commission does not allow the conclusion to be drawn that an

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65 See paragraph 26 of Commission Decision IV/M.580 ABB/Daimler-Benz of 18 October 1995.

66 See paragraph 19 of Commission Decision COMP/M.2069 Alstom/Fiat Ferroviaria of 18 September 2000.

67 See IV/M.580 ABB/Daimler Benz, Commission Decision of 18 October 1995; IV/M.1064 Bombardier/Deutsche Waggonbau, Commission Decision of 29 January 1998; COMP/M.2139 Bombardier/ADtranz, Commission Decision of 3 April 2001.

EEA-wide market is appropriate for the assessment of the proposed concentration.[68] Even in the years since 2001, the year of the last Commission decision, national buying predominates in those Member States which have their own strong industry. For the most part, foreign firms are taken into account only through subsidiaries established within the country. Thus, in Austria, for example, contracts have been won only by the two suppliers Siemens and Bombardier, both of which, following earlier takeovers, have production capacities in the country. The same applies to Germany, where only Alstom, Bombardier, Siemens and Stadler have won orders for trams, underground trains and regional trains, all of these companies having their own production facilities in Germany as a result of earlier takeovers.

(117) The market investigation confirmed this assessment. Apart from Siemens, only one other competitor took the view that the relevant market for the rail vehicles in question was the EEA, although a local presence in this industry was an advantage. All the others believed that the markets were national or saw the market as being in transition to a European market, with a national presence through manufacturing facilities continuing to be important.

(118) For the purposes of this Decision, national markets have therefore been assumed for trams, underground trains, (electrical) regional trains and (electrical) locomotives in the case of those Member States which have their own strong rail vehicle industry. In the present case, these are Belgium, Germany, Austria, Poland, Spain and the Czech Republic.

3. Competition assessment

(119) In the EEA there are eight fairly large suppliers of electrical rail vehicles as well as local suppliers of trams such as the Czech company Inekon or, as a new supplier, Leoliner Fahrzeugbau in Leipzig, which produced a new tram in 2003. Five of these suppliers are so-called systems producers, which are able to supply a complete train including electrical traction. These are AnsaldoBreda, Alstom, Bombardier, Siemens and Skoda. Four suppliers manufacture only the mechanical part. These are the two Spanish suppliers CAF and Talgo, Inekon and Leoliner. These four non-integrated manufacturers are not active over the whole product range. CAF does not manufacture electrical locomotives and Talgo does not manufacture trams or underground trains, while Inekon and Leoliner each manufacture only one tram.

(120) Stadler was until 2001 a purely engineering firm but has in recent years developed into a systems producer by developing the ability to design the electrical traction for its trams and EMUs itself and to incorporate it into the vehicle using purchased components. Stadler does not supply underground trains or electrical locomotives. The other four non-integrated firms (CAF, Talgo, Inekon and Leoliner) must, in order to be able to supply a rail vehicle with electrical traction, find a supplier or cooperation partner for the electrical part. In principle, both the systems producers and independent suppliers of electrical traction could be considered for this.

(121) Of the five systems producers, AnsaldoBreda does not sell its electrical traction systems to third parties, while Skoda has not yet had any success selling electrical

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[68] "Analysis of the Rail Transportation Markets", Expert report of Bearing Point, 2004, p.15: "At this stage, all subsegments have to be considered as national markets to be assessed. However, there is a clear trend towards Europeanisation for the highest technological sub-segments."

traction systems in the EEA apart from in the Czech Republic. In addition to the three systems producers which do supply electrical traction for practically all types of rail vehicles to third parties, there are two independent European suppliers of complete electrical traction systems for rail vehicles which do not cover the whole product range. Kiepe, which belongs to Vossloh, manufactures only electrical traction for trams. The VA Tech subsidiary Elin EBG Traction ("ETR") supplies electrical traction for trams, underground trains, regional trains and electric locomotives.

(a) Trams

(122) Siemens stated that on the market for **electrical traction** for trams in the EEA it had a joint market share with ETR of [20-30]*% (Siemens [5-10]*%, ETR [15-20]*%) in the period under consideration (1999-2003). According to Siemens, there was no overlap on a national basis. […]*

(123) In **Spain**, Siemens has, according to its own data, a market share in value terms of [20-30]*% for complete trams. The market leader is Alstom with [70-80]*%, while CAF has around [5-10]*%. The market investigation substantially confirmed these market shares. If we include 2004, there were 7 tenders for trams in Spain in the period from 1999 to 2004. Siemens and Bombardier each won […]*, CAF […]* and Alstom […]*.

(124) CAF won the order for the trams in Seville, which was awarded in 2004. It is fitting the 17 trams with traction manufactured by ETR. […]*

(125) In the last two years […]*, CAF has not bid with any integrated supplier in Spain, only with ETR. There were in Spain three other projects with ETR acting as the planned supplier of the electrical part. However, these tenders went to the systems producers Alstom and Bombardier.

(126) Siemens stated that CAF does not have to depend on ETR but has two alternatives which are also independent. These are Kiepe and TEAM/Ingelectric. With TEAM, CAF won the tender in Bilbao in 1999 for a total of nine trams ("EuskoTran").[69] This order for the Spanish firm TEAM, a subsidiary of Ingelectric, six years ago has, however, so far been the only one for TEAM, which has no other references. In addition to this, factors other than purely economic ones could have been decisive as TEAM is a Basque company which was given the order for the tram in its own town.

(127) Kiepe has not so far been successful on the Spanish market. However, it has attempted, in particular through approaches to CAF, to gain a foothold on the Spanish market. Furthermore, its parent company, Vossloh, has since 2005 had a production facility in Valencia which manufactures primarily diesel locomotives, but it also has a tram in its programme. Although this is being equipped, for the orders already obtained, with electrical traction provided by the previous owner of the factory, Alstom, it is certainly not improbable that Kiepe will supply the traction for future orders for this tram. Kiepe must therefore be regarded as a credible alternative to ETR.

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69 Table 2, Orders for electrical equipment, municipal transport 11-12/04, p. 18.

(128) The proposed merger would therefore do nothing to alter the situation on the Spanish market, with at least four credible suppliers of trams continuing to be available.

(129) In **Austria** ETR is, together with Siemens, a consortium partner for the ULF (Ultra Low Floor Tram) and supplies the electrical traction for this vehicle, which has a [60-70]*% share of the tram market. ETR is also a consortium partner with Bombardier for the Cityrunner of the Linz type, which during the same period had a market share of [15-20]*%. The remaining [10-15]*% market share is accounted for by a Cityrunner manufactured by Bombardier and ordered in 1999 by Graz with traction provided by Kiepe.

(130) Bombardier has already developed a traction system of its own for the Linz Cityrunner, which is now known as the Flexity Outlook, and has used it in orders for the Cityrunner in France, Belgium and Spain. However, in line with the commitment given in the Bombardier/ADtranz case, Bombardier is tied to ETR until April 2006 for further orders of the Cityrunner in Linz. This applies in particular to Linz city transport authority's option on 18 more trams of this type. The aim of the commitment given by Bombardier in the Bombardier/ADtranz case was to maintain an independent supplier for electrical traction systems, including for trams. This commitment would be made obsolete by the takeover of ETR by Siemens and, provided that Siemens, as intended and as currently notified, acquires sole control of VA Tech, will be set aside by a separate Commission decision, conditional on Siemens acquiring, as intended and notified, sole control of VA Tech.[70] This and the fact that Bombardier is no longer dependent on ETR for this product suggest that there will be no substantial reduction in effective competition on the Austrian market for trams.

(131) In **Poland** there were four tenders during the relevant period. Bombardier won […]* of the tenders and Alstom and Siemens […]*. ETR supplied the traction for […]*. Consequently, following the takeover of ETR, Siemens would be the supplier of […]* of the four successful trams. However, neither Alstom nor Bombardier is dependent on ETR as a supplier of electrical traction since both have their own capacity here. Nor is ETR indispensable as a means of gaining entry to this market. Alstom has taken over the Polish company Konstal and thus has a strong base in Poland since Konstal has manufactured most of the trams in use in Poland. Bombardier has won a further order in Poznan with Kiepe as supplier. In addition to these three established suppliers, Skoda has now in 2005 also won its first order for eight five-section low-floor trams for Wroclaw. It is therefore not to be expected that the takeover of ETR will result in a substantial reduction in effective competition in Poland.

(132) In the **Czech Republic** ETR is the supplier for Skoda's 03T Astra tram and for Inekon's Trio. Inekon had initially developed the Astra with Skoda, which also built it. The Trio tram is a further development of the Astra and is built by Dopravní Podnik Ostrava (DPO). Siemens has not been able to win any tenders for complete trams. It has, however, taken part in tenders, […]*. So far, Skoda and Inekon share the Czech market for trams, with Skoda being the clear market leader, while Inekon has so far won orders for only four trams. Skoda has its own traction systems for trams, as with the "Vectra" tram for Cagliari in Italy, and is not dependent on ETR.

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70 See Commission Decision in Case COMP/M.2139 Bombardier/ADtranz of […] July 2005.

If, following the takeover of ETR, Siemens were to increase prices or refuse to supply its products, Skoda could switch over to own manufacture. Both Skoda and Inekon would also be able to order the electrical traction from Kiepe as an independent supplier. Alstom, Bombardier and Siemens are also available as potential suppliers of both traction and complete vehicles.

(133) Accordingly, the takeover of ETR by Siemens does not result in any significant impediment to competition on the market for trams in Austria, Spain, Poland and the Czech Republic.

(b) Underground trains

(134) The combined market share of Siemens and ETR in the case of **electrical traction** in the EEA was, according to data provided by Siemens, [15-20]*% in the period 1999-2003 (Siemens [15-20]*%, ETR [2-5]*%). The market leader is Bombardier with [40-50]*%, ahead of Alstom with [15-20]*%, Ansaldo with [15-20]*% and Skoda with under [5-10]*%. The market share attributed to Ansaldo relates to orders for which the traction of existing vehicles was replaced. The market investigation confirmed the market leadership of Bombardier and a combined market share for Siemens and ETR of this order of magnitude. ETR's small market share and the relatively small joint market share do not allow the conclusion to be drawn that the proposed takeover would result in a significant impediment to effective competition on the market for electrical traction for underground trains.

(135) Tenders for underground trains are much less frequent than those for trams and regional trains. In the period under review (1999-2003), there were only 14 projects in the whole of the EEA, and ETR was able to win orders in Austria and Belgium. […]*. Therefore, the takeover changes nothing in the existing competitive relationships in Austria.

(136) In **Belgium** ETR supplies the electrical traction systems to CAF, which has won this tender. […]* As the other two possible suppliers for this project, Bombardier and Alstom, had offered to supply their own train,[71] the number of suppliers for the electrical traction systems in this project would have fallen from two to only one, the merged company Siemens/ETR.

(137) Even after the planned takeover of ETR by Siemens, a further independent supplier of electrical traction would remain in the EEA. Since 2003 the Japanese company Mitsubishi Electric has been operating in the EEA. To date, it has been able to win two projects as a subcontractor in Europe, both underground train projects. It is the supplier of the metro in Athens, the mechanical part of which is built by the Korean firm Rotem, which also operates as a full-line manufacturer. The second project is the Barcelona metro, for which CAF is responsible. Since 1999 CAF has won contracts once with ETR (Brussels) and once with Mitsubishi (Barcelona) as suppliers and has bid and lost with both of them almost as frequently in other tenders in the EEA. This shows that Mitsubishi is a credible supplier of underground train traction systems.

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[71] Doc. 6501 of 6 April 2005, letter from Siemens, p. 3.

(138) Both in Belgium and in Austria there is only a single metro. Tenders are therefore correspondingly rare so that the winner has a monopoly until the next tender. Even after the planned takeover of ETR by Siemens, there would have been one more supplier for the electrical part of the tender for the Belgian metro. In addition, since 2003 there has been another independent supplier of electrical traction for underground trains active in the EEA in the form of Mitsubishi, which already supplies the traction for two projects. Furthermore, in the review period, CAF also won orders with systems producers, including the tenders for underground carriages in Madrid, Barcelona and Rome. For these reasons, the planned takeover of ETR by Siemens does not result in a significant impediment to effective competition in the Belgian market for underground trains.

(c) Regional trains

(139) For regional trains Siemens was not able to submit any separate market shares for the electrical part, on the grounds that the mechanics and the electrics are awarded separately on very rare occasions. ETR is the only credible independent supplier of electrical traction in the EEA which can also supply the electrical part for regional trains and has done so. Kiepe does not have traction for regional trains in its programme, and outside Japan Mitsubishi has no references for regional trains.

(140) ETR is at present an electrical system integrator for only on tried-and-tested and available regional trains. Together with Bombardier, it forms the consortium manufacturing Talent, a regional train, which is available with diesel traction, diesel-electrical traction or simply with electrical traction. It is responsible for the electrical traction system, which, in the case of the electrical ("EMU" and diesel-electrical ("DE-DMU") Talent, accounts for […]*% and more of the value, and owns patent and protective rights for this traction system.

(141) ETR is also in a consortium with Talgo for the double-decker regional train Talgo 22, which is the first double-decker train to provide inter-car gangways on both levels. The concept of the vehicle is based on a combination of wheel set and articulated train technology from the Talgo XXI and the experiences of Talgo Oy (Finland) in building double-decker vehicles. The Talgo 22 is a new development which is not yet in use. It will become available in the course of 2005 both as an electrical multiple-unit train with traction by ETR and as a simple train set with or without multiple-unit control cars.

(142) According to ETR, EMU and DE-DMU Talents were sold during the relevant period only in Germany, Austria and Norway. In Norway, according to Siemens, there was no overlap as Siemens has sold neither electrical traction systems nor regional trains there. In 2000 Bombardier/ETR won an order for a very small number of electrically driven trains which do not lead to any significant market shares.

(143) In **Germany** Siemens has, according to its own data, a market share of [15-20]*% in the market for regional trains, behind the market leader Bombardier with [50-60]*% and Alstom with [20-30]*% and ahead of Stadler with [5-10]*%. In a separate market for electrical and diesel-electric regional motor-trains, it would, according to its own data, have a [10-15]*% market share and Bombardier a [60-70]*% market share, followed by Alstom with [20-30]*% and Stadler with [5-10]*%. According to Siemens, the Talent's share is [40-50]*%, with […]* trains sold. These figures were essentially confirmed by the market investigation. Since ETR supplies the electrical

traction for the Talent, there would be a vertical link between Siemens and Bombardier, which together supply [50-60]*% of the German market for electrical regional trains (EMUs and DE-EMUs). However, the demand side is equally strongly concentrated. The four hitherto successful suppliers in the German market, all of which have production facilities in the German market, are matched by Deutsche Bahn and a number of smaller regional railways. At least Deutsche Bahn, which accounted for the bulk of the orders during the relevant period, enjoys buyer power.

(144) In **Austria** […]* Bombardier won orders from the ÖBB for EMUs, namely for its EMU Talent, in the relevant period. […]* By contrast, during the relevant period, Siemens won the […]* for regional diesel traction trains, which means that in the overall market for regional trains in Austria Siemens had a [15-20]*% share and Bombardier an [80-90]*% share. With its product Desiro, which like the Talent is available both as a DMU and with diesel electric or electric traction, Siemens is a close competitor of Bombardier on the Austrian market for electrically driven regional trains. Bombardier and Siemens are the only two suppliers to have their own production facilities in Austria. On the demand side, there was during the relevant period only one customer, the ÖBB, which enjoys market power as a monopsonist. On the other hand, in 2004 the Swiss company Stadler won an order for six of its electrical GTWs. Even though this involved the exercise of an option by the Linz local railway company, this order shows that Stadler too, with its GTW, which like the Desiro and the Talent exists as an EMU and as a DMU, must be seen as a credible supplier on the Austrian market for regional trains.

(145) Siemens estimates that Bombardier requires approximately […]* to replace ETR as a supplier.[72] This estimate was broadly confirmed by Bombardier. The latter has already developed its own electrical traction system. Since, however, ETR has industrial property rights to its own components, in particular the control and guidance system of its traction, it would be impossible for Bombardier to provide a number of important functions of ETR's traction, e.g. multiple traction with the Talent trains already delivered and fitted out by ETR. This would be a serious disadvantage for Bombardier when supplying customers who already have the Talent in their fleet. For these functions Bombardier would have to rely on ETR, which after the merger would belong to its direct competitor Siemens. In addition, Siemens would gain access to the technical knowledge of a direct competitor.

(146) A link between Bombardier and Siemens would reduce competition between the two companies in tenders in Germany and Austria. Siemens would be in a position to dispense with price concessions in the discussions following the tenders and, instead of this, to earn profit as a supplier of the electrical traction, which constitutes up to […]*% of the value of a regional train.

(147) However, Siemens has concluded a contract with Bombardier that enables Bombardier to […]* and to supply the Talent as a wholly independent competitor. This means that the number of independent suppliers of EMU regional trains remains unchanged. Consequently, the planned takeover of ETR by Siemens would not result in a significant impediment to effective competition in the German and Austrian markets for regional trains or in the market for electrical regional trains.

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72 […]*.

(d) E-locomotives

(148) ETR also supplies electrical traction for e-locomotives. Siemens is a manufacturer of electrical locomotives. The takeover of ETR would mean the removal of an independent manufacturer of electrical traction for locomotives from the market. However, ETR did not have any success in tenders in the last […]* years. Furthermore, there is still at least one other manufacturer of traction for electrical locomotives in the EEA. The Spanish supplier Team/Ingelectric is the supplier of the traction for the 44 variable-gauge electrical locomotives which have been ordered by Renfe from the manufacturer Talgo and the prototype of which was presented in December 2004. It is therefore not to be expected that the proposed takeover of ETR by Siemens would result in a significant impediment to effective competition.

(e) Changed market situation due to the removal of ETR

(149) Siemens claims that there will be no decisive change in the structure of the market due to the takeover of ETR. Already […]* of ETR's order book was taken up with orders from Siemens. The […]* set of orders resulted from projects with Bombardier, which could also manufacture electrical traction systems itself. According to data from Siemens, on average in the four years from 2001 to 2004 [50-60]*% of orders came from Siemens, [30-40]*% from Bombardier and [5-10]*% from CAF. This order of magnitude for the figures was confirmed by VA Tech. However, these figures refer to the past. The proportion of orders carried out with CAF grew significantly only as from 2004 and, according to targets, should rise further. Nor has the Talgo 22 project yet been taken into account in these figures, although preliminary work on it has been carried out and orders are expected as from 2006.

(150) These figures show that ETR is an increasingly important partner for the two non-integrated manufacturers of rail vehicles, which have no competence in the electrical part. Furthermore, for certain markets and products ETR is also an important partner for systems producers, in particular for Bombardier and the Talent.

(151) However, Siemens takes the view that the removal of ETR would not pose any competition problems since, on the one hand, there are sufficient alternatives to ETR for the supply of electrical traction and on the other, even if the worst came to the worst and the non-integrated suppliers of electrical rail vehicles were removed, there would still be sufficient competition.

(152) Whereas trams and underground trains each still have an independent supplier of electrical traction with up-to-date references, it is questionable whether the same situation applies in the case of regional trains. Siemens argues here that there are still independent Japanese electrical manufacturers for regional trains and that there are two new market participants in the shape of ABB and Medcom. The market investigation has, however, shown that hitherto ABB has supplied only essential components, in particular the frequency converter, but not the entire package. Therefore, from the point of view of those customers who cannot undertake integration of the electrical components, ABB is not an alternative to ETR.

(153) Siemens also refers to the company Medcom in Poland, which has won a first order supplying the electrical traction of a commuter train of the Polish company PESA. Commuter trains are the simplest trains in the regional train sector with a

configuration for speeds of normally not more than 80-120 km/h. This order is so far the only reference for Medcom. yet references are enormously important in this business.[73] It is therefore highly questionable whether in the next two to three years Medcom will become a credible supplier outside Poland.

(154) In addition, Siemens argues, the Japanese suppliers Toshiba and Hitachi are active on the European market. So far Toshiba has only been able to obtain orders in Ireland in which it acted as a subcontractor to another Japanese company Tokyu Car. The last of these orders already dates back three years. The general assessment of the Asian suppliers, therefore, is that they are more likely to become serious competitors in the longer term.[74]

(155) To date, Hitachi has been able to win one tender. It was selected in October 2004 as the preferred supplier for 30 trains for the "Channel Tunnel Rail Link" project.[75] However, it is not an independent supplier of electrical traction systems, but an integrated supplier of rail vehicles.

(156) The proposed takeover therefore reduces the number of independent suppliers for electrical traction on the European markets for regional trains from one to zero. There would then no longer be a credible alternative to the systems producers. Siemens is, however, of the opinion that the non-integrated suppliers are in no way reliant on independent suppliers of electrical traction. The integrated suppliers of rail vehicles often supplied the electrical part separately to non-integrated suppliers. Siemens refers here in particular to the cooperation with CAF in Spain on the regional train Civia, for which Siemens is supplying the electrical traction system.

(157) This is therefore a rational decision if the customer as a non-integrated supplier of rail vehicles has the option of buying in the electrical traction system from an independent supplier and can therefore in any case make a bid. If, however, this option no longer existed as a result of the proposed takeover of ETR by Siemens, the incentive for the integrated suppliers to make a bid for a total package for the electrical part would change. Bombardier has already made it clear that it follows the strategy, in tenders, of first offering its own complete rail vehicle.[76]

(158) […]* Bombardier also said that it always offers its own complete product first, before offering the traction to a competitor. Hence, in the case of regional trains, the two independent manufacturers CAF and Talgo would be competing with the integrated systems producers in all those tenders in which they first want to supply their own product.

(159) But even in cases in which an integrated supplier is prepared in a given tender, at the same time as making a bid for the complete train, to pass on the electrical part to a non-integrated supplier, the non-integrated supplier will be at a competitive disadvantage. In order to match the mechanical and electrical parts with each other, an exchange of technical information is necessary which will give the integrated supplier useful information about the strength of its competitor. Furthermore, the

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73 Bearing Point expert report, 44.

74 Bearing Point expert report, 46.

75 http://www.hitachi-rail.com/rail_now/hot_topics/hot_topics_2004/ctrl.html.

76 Doc. 5157 of 15 March 2005, Bombardier, reply to question 3.

integrated supplier will also have control of a block of costs which, on delivery of the overall electrical part, can account for up to […]*% of the total train. This leads to a considerable lessening of competition. The integrated supplier is therefore able to make the non-integrated supplier's bid more expensive or make a less price-aggressive bid with his own product.

(160) On the other hand, the systems producers do not participate in each and every tender. Almost all of them pursue what is known as a platform strategy, under which a platform such as […]* is adapted to suit the customer's special requirements. Particularly in the case of trams and underground trains, with their special bend curvatures, tunnel dimensions, slope gradients, etc., the car boxes and configurations of these standard products are often unsuitable. It is often not worthwhile adapting them to meet the requirements. […]* Consequently, although non-integrated manufacturers of rail vehicles cannot rely in each tender on receiving a competitive offer from a systems producer for the electrical part, systems producers are, in a not inconsiderable number of tenders, unable to supply a suitable product and then have a very strong incentive to participate at least in the supply of the electrical traction. For example, this is true for the Talgo 22, the only regional train so far with two stepless decks running through the entire train, a product which none of the integrated suppliers can offer.

(161) On the other hand, the market investigation showed that it is possible to acquire the capacity to plan and integrate an electrical traction system within two or three years. The necessary know-how is relatively easy to acquire. The example of the Swiss company Stadler demonstrated that it was possible, in the three years since the complete takeover of all rights to the GTW regional train and to the Variotram following the Bombardier/ADtranz merger, to develop this integration skill and to assemble the electrical traction from electrical components from, among others, ABB. In view of the long lead times in the rail industry between the issuing of a tender, the picking of the winner and the delivery of the train, two to three years for acquiring the competence for electrical traction do not seem overly long a time.

(162) Even if the non-integrated suppliers of rail vehicles, including the main non-integrated supplier CAF, were eliminated from the market for electrical rail vehicles, there would continue to be in the individual Member States a sufficiently large number of actual and potential competitors in the overall train market. It must also be borne in mind that, at least in the case of regional trains, the demand side enjoys market power.

(f) Conclusion

(163) The planned takeover of ETR by Siemens reduces the number of credible independent suppliers on the two markets for tram and underground train traction and for electrical traction for locomotives from two to one and eliminates the last independent credible supplier for electrical traction for regional trains. However, for several reasons, this will not result in the existing effective competition for electrical traction for tram and underground train vehicles, regional trains and locomotives being significantly impeded.

(164) First, a credible independent supplier will still remain in each of the two markets for tram and underground train traction and for electrical traction for locomotives. Second, the systems producers will also continue to be suppliers for all traction

systems. Third, there is the real possibility of acquiring within two to three years the ability to integrate the electrical part. Lastly, even in the hypothetical event of a successful strategy designed to squeeze non-integrated suppliers of electrical rail vehicles from the market, sufficient competition would remain in the relevant downstream market for rail vehicles.

C2. CONTACT LINE ENGINEERING

1. Relevant product markets

(165) Railway contact lines are transmission systems for supplying trains with electric current via current collectors. In most cases the current is supplied by overhead lines suspended above the locomotives. In the case of underground railways and to some extent overhead railways as well, it is supplied by a live third rail.

(166) Siemens considers that, as in the ABB/DaimlerBenz decision, there is a uniform market for contact lines, which cannot be subdivided by final consumer, e.g. suburban or long-distance railways, or by system (overhead contact line versus third rail). Some customers submitted, however, that it is correct to differentiate first between third rail and overhead contact lines and then to subdivide overhead lines between local/urban traffic and mainline traffic. This question can be left open in the present case, however, since even on a narrow definition – overhead contact lines for mainline traffic in this case - effective competition will not be significantly impeded.

2. Relevant geographic markets

(167) The proposed takeover of VA Tech leads to overlaps in Germany only. In its ABB/DaimlerBenz Decision the Commission assumed that the markets for contact systems were national.[77] Siemens considers that they have since grown to become more like the EEA market. The market investigation revealed a very uneven picture, in particular among German urban transport companies, ranging from national to worldwide markets. Since dc networks and similar voltages in the 600-750 kV range are usually used for tramways and underground railways throughout the EEA, the market for contact lines in an urban context is more homogeneous than for contact lines in long-distance transport. It is therefore simpler, at least theoretically, to commission foreign suppliers. None of the urban transport companies surveyed, however, has commissioned a supplier of contact lines that does not have its own branch in Germany. In the case of current supply lines, VA Tech serviced the first projects on the German market from Austria, but very soon with its own branch set up a support centre in Germany. Given present demand behaviour in Germany, however, an EEA-wide definition does not seem appropriate. For the purposes of this Decision, therefore, national markets continue to be assumed.

3. Competition assessment

(168) The proposed takeover of VA Tech leads to overlaps in Germany only, since Siemens has transferred its Austrian business to SPL under a management buy-out. According to Siemens, the parties' joint share of the German market for all contact

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77 See IV/M.580 ABB/Daimler Benz, Commission Decision of 18.10.1995; IV/M.1064, paragraphs 30 and 41.

line engineering in 1999-2003 is [40-50]*% (Siemens [30-40]*%, VA Tech [2-5]*%). The market survey confirmed that the joint market share is of this order of magnitude (Siemens [30-40]*%, VA Tech [0-5]*%). The competitor Balfour Beatty is roughly as strong, so that the two largest suppliers together have a share of [70-80]*%. The other suppliers such as Bahnbau, Elpro, Fahrleitungsbau (RWE), Spitzke and Amec Spie have a market share of in some cases significantly less than 10%.

(169) At just under [2-5]*%, VA Tech's market share in Germany is relatively small. VA Tech is one of the altogether five smaller suppliers in the German market. The merger will not result therefore in a considerable change in market structure. Moreover, only in overhead contact lines for mainline transport are there any overlaps. Even if overhead contact lines for mainline transport were defined as a separate product market, competition would not be appreciably reduced. Siemens and VA Tech would then have a joint market share of under [30-40]*%: the market leader in this segment would be Balfour Beatty. Even if VA Tech is somewhat stronger in this market than in the overall market, it is nevertheless one of five smaller suppliers which each have a market share of clearly less than 10%. At the same time, Deutsche Bahn is the only customer in that market and has buyer power.

(170) Deutsche Bahn has submitted that after a takeover of VA Tech by Siemens, in the market segment for large contact line projects in mainline transport with a volume of over EUR 10 million there would only be two suppliers left: Siemens/VA Tech and Balfour Beatty. In DB Bahnbau GmbH, however, Deutsche Bahn has its own subsidiary in the contact lines sector, which is managed like an independent firm.[78] In the period under consideration this had a [5-10%]* share of Deutsche Bahn's orders. In the past, Bahnbau has won individual projects with a volume of over EUR 5 million and framework agreements worth over EUR 10 million. It must therefore be assumed that it is able to submit a credible bid for individual contracts in excess of EUR 10 million.

(171) Analysis of the tenders in the period 1999-2004 also supports the conclusion that the market structure has not been substantially changed. Siemens and VA Tech were both involved in only […]* of the total 5 749 Deutsche Bahn tenders, i.e. in a little more than […]* percent. In […]* cases the two firms were first or second and hence the closest competitors for the particular project. These […]* orders account for [2-5]*% of the total volume of orders in the period under consideration.

(172) If one considers only tenders for projects in excess of EUR 10 million, the picture is as follows: of the […]* orders in question, […]* went to Siemens, […]* to Balfour Beatty and […]* to VA Tech, Spitzke and DB's own subsidiary Bahnbau. The latter, however, was a framework contract covering several smaller projects. […]*, it cannot be inferred from this that competition in the German market for contact line engineering will be substantially reduced by the takeover.

(173) Moreover, the breakdown of orders shows that Spitzke, as well as Siemens and Balfour Beatty, is able to handle large orders of this kind. Thus Deutsche Bahn has three suppliers in this market segment. Furthermore, during the period in question, Elpro was able to win an order in the EUR 5 million category. While this order was

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78 DB Netz AG, Annual Report 2003, p. 28.

six years ago, it shows that, potentially at least, Elpro is capable of submitting a credible bid for tenders worth over EUR 5 million, especially if prices should rise as a result of the merger. In addition, DB's own subsidiary Bahnbau can be used at any time as a corrective. As a further possibility, the smaller competitors could form a consortium for large orders in excess of EUR 10 million.

(174) Nor does the takeover of VA Tech increase the risk of tacit coordination by a duopoly of Siemens and Balfour Beatty in the German market. In the market for the construction of contact lines for mainline transport, prices and margins have been falling for some years, as the only customer, Deutsche Bahn, is reducing investment, in particular because of the decline in Federal funds for railway infrastructure until 2008. For this reason, Siemens had intended to sell this sector to Leonhard Weiss.[79] Another supplier was also supposed to be sold. Tacit coordination in a market with shrinking volumes and margins is difficult, however, since every rational supplier has an incentive to circumvent that coordination and secure for itself today a larger share of the profit from the sector, which will already be smaller tomorrow. Nor, given the tender data, is the argument convincing that, as a relatively new supplier in the German market, VA Tech acts as a corrective or "maverick" which can successfully disrupt the tacit coordination between Siemens and Balfour Beatty.

(175) In view of the above, the Commission finds that the proposed takeover will not lead to a significant impediment to effective competition either in the German overall market for contact lines or in a possibly narrower German market for overhead contact lines for mainline traffic.

C3. TRACTION POWER SUPPLY

1. Relevant product markets

(176) The market for supplying power to electric railway vehicles can basically be divided into three segments: the generation of electricity in power stations and substations for frequency conversion, the traction current cables and the power supply points in the traction network.

(177) These can be further subdivided according to the type of railway. While tramways, underground railways and most regional railways operate on direct current with a voltage of 600 V, 750 V or 3 kV, intercity railways use alternating current at a substantially higher voltage of 15 kV or over. The operators of traction current networks for long-distance traffic, such as Deutsche Bahn or ÖBB, often have their own power stations or at least their own generators in national grid power stations, while regional and urban railways generally draw their power supplies from the networks of the publicly-owned energy supply companies EVU.

(178) Generation and transmission via overland cables to the traction current network are not usually specific to the railway field. This does not apply, however, to the five countries Germany, Switzerland, Austria, Norway and Sweden. These have their own traction current networks, which are operated with single-pole alternating current at a frequency of 16 2/3 Hz and 15 kV voltage. This traction current cannot be procured direct from the energy suppliers' distribution networks, but is generated

[79] Frankfurter Allgemeine Zeitung No 47, 25.2.2005, p. 20. The sale failed for collective bargaining reasons.

partly in the railways' own power stations and partly in ordinary power stations by generators and inverters specifically installed for the purpose and, in Germany's case, transmitted via 110 kV lines to the traction current network.

(179) From the demand angle it is not possible to replace plant for generating 16 2/3 Hz/15 kV traction current with turbines on account of the special voltage and frequency. However, the producers of power stations and generators are also able, without exception, to make plant for the special requirements of railways that use 16 2/3 Hz/15 kV traction current. Given this flexibility on the part of suppliers, it is therefore not appropriate to assume an independent market for the generation of 16 2/3 Hz/15 kV traction current. Moreover, traction current can be generated not only with turbines but also with static inverters on the basis of semiconductor components. This technology will become increasingly important compared with conventional generation using turbines.[80]

(180) The situation is otherwise with regard to the servicing of such plants, which often run for decades. With repairs and maintenance, the firm which produced the plant is at an advantage here, since it has the working drawings and the appropriate experience.

(181) As regards the installation of the overhead lines, which transmit the traction current from the power station to the power supply points, there is no overlapping in the present case, since Siemens has sold this business, which now operates as an independent company under the name FBG Freileitungsbau.

(182) The supply of traction current proper, i.e. the supply of electricity to the traction current network, is ensured by power supply points, also known as substations, transformer stations or switchgear. By means of these substations the electricity from the energy suppliers' distribution networks is converted to the voltage required by the particular railway and fed into the traction current network. Substations consist basically of high and medium voltage switchgear, transformers, inverters and rectifiers, station control engineering and the necessary auxiliary equipment.

(183) In accordance with the ABB/DaimlerBenz decision, Siemens considers that in the case of traction power supply, a sector where Siemens and VA Tech operate *inter alia* through their subsidiary SAT, the market is uniform and cannot be further subdivided. The market survey confirmed that all major suppliers of traction power supply equipment offer complete installations, even if they do not manufacture individual components themselves and hence buy them additionally or have them provided by the customer.

(184) A fairly large number of customers and some competitors consider, however, that separate markets should be defined for these components, in particular for control engineering. Some customers also procure only individual components or do not award a substation to a general contractor, but hold a separate tender. One competitor submitted in this respect that a merged Siemens/VA Tech would have some key components that would in practice give it a monopoly for certain segments of traction power supply for mainline traffic. However, even if, as suggested by Deutsche Bahn, one were to make a further division between switchgear with

[80] Doc. 4750 Deutsche Bahn, 11.3.05, reply to question 8.

network control, remote control and safety engineering on the one hand and components for those systems on the other,[81] the proposed merger would not lead to a significant impediment to effective competition.

(185) To sum up, therefore, the following product markets are differentiated in the traction power supply sector: complete substations, railway specific components for substations and servicing turbines for generating traction current.

2. Relevant geographic markets

(186) In its ABB/DaimlerBenz decision the Commission assumed that the markets for the supply of traction current proper were national. Siemens considers that they have since grown to become more like the EEA market. The market investigation revealed a very mixed picture. Although a majority regarded national markets as too narrow and sees the EEA as the relevant geographic market, not a few customers assume national markets. None of the urban transport companies surveyed, however, has commissioned a supplier of substations or components that does not have its own branch in Germany or Austria. In addition, all safety-relevant components of traction power supply must be accepted by a national authority. Given present demand behaviour in Germany and Austria, therefore, an EEA-wide definition does not seem appropriate. For the purposes of this Decision, therefore, national markets continue to be assumed. The same applies to the servicing of turbines for generating traction current.

3. Competition assessment

(187) According to Siemens, Siemens and VA Tech achieved a joint market share of [30-40]*% (Siemens [15-20]*%, VA Tech [20-30]*%) in the Austrian market for complete substations. Other competitors are ABB with [10-15]*% and Areva (ex-Alstom) with [10-15]*%, plus a number of smaller suppliers.

(188) The market investigation revealed that, averaged over the five years 1999-2003, the Austrian market was worth EUR 10 million. Siemens's market share was [10-15]*%, that of VA Tech [30-40]*%, and the joint market share [40-50]*%. Areva had 20-30%, ABB 10-20%, Balfour Beatty and SAG, a subsidiary of RWE, 5-10%. The remainder is shared among relatively small suppliers, such as Sprecher Automation.

(189) Because there are few projects, the market shares fluctuate very considerably from year to year. Thus, in the period under review, Siemens' market share was between [2-5]*% and [30-40]*%. In 2004 ABB won a large order for renewal of the traction power supply (substations) for Wiener Linien's U1 and U2 lines, worth over EUR 10 million; this makes ABB the outright market leader for 2004. On the supplier side, as well as the three established internationally active competitors of Siemens and VA Tech - ABB, Areva and Balfour Beatty – there is also a relatively small supplier that can offer complete substations. In 2002 Sprecher Automation took over Alstom Austria's former control technology business and is thus able to position itself in the market as a complete supplier of substations.

(190) On the demand side in Austria there are basically only two customers which have buyer power: Österreichische Bundesbahnen and Wiener Linien. Both these

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[81] Doc. 1047 Deutsche Bahn, 24.1.2005, reply to question B6.

customers put their orders out to tender. Since these are tender markets and only very few substations are put out to tender every year, effective competition prevails, as the range of the market shares shows.

(191) In the case of components, by taking over VA Tech's subsidiary SAT, Siemens acquires one of the three station control technology systems approved by ÖBB. The two other approved systems are produced by ABB and Sprecher. Even if Siemens, after taking over VA Tech, no longer markets the SAT product to third parties, the sole customer for this system, ÖBB, would still have at least three suppliers of complete substations, which use their own station control system approved by ÖBB. Added to this, ÖBB is quite at liberty to approve further suppliers of such systems if necessary.

(192) Siemens's and VA Tech's joint share of the German market for complete substations is [40-50]*% (Siemens [30-40]*%, VA Tech [5-10]*%). The most important competitors are Balfour Beatty with 20-30%, ABB with 10-20%, Elpro with 10-20% and Spitzke with 5-10%.

(193) VA Tech, through its subsidiary SAT, is largely active in the mainline sector, i.e. supplying Deutsche Bahn with traction power (alternating current of the 16 2/3 Hz and 15 kV variety) and only to an insignificant extent in the mass transit segment, i.e. the direct current segment. In the mass transit segment, none of the market participants surveyed, in particular all the approximately 20 customers, saw the proposed merger as raising competition concerns.

(194) In the mainline traction power segment, where Siemens and VA Tech have a joint market share of some [20-30]*%, one competitor and in particular the main customer, Deutsche Bahn, considered that SAT should not be taken over by Siemens, since otherwise in the case of some major components while there would be no horizontal overlapping there would be a problem of market foreclosure.[82] SAT offers in particular station control technology, remote technology, network control systems (SCADA) and associated automation components.

(195) Some traction power supply engineering components and remote technology and network control systems products, such as SCADA and Remote Terminal Units, are standard products from the T&D sector (see above, T&D paragraphs XY), which are adapted to the requirements of the railway networks. As well as the large manufacturers there are also smaller competitors, which have specialised in the rail segment with its 16 2/3 Hz/15 kV network, such as Kayser-Threde, a leading supplier of control technology for monitoring and regulating substations. Other products are so specific to the railways that they require a special licence from the German Federal Railways Office (EBA). In the case of three components for traction power supply proper, SAT is one of the few manufacturers, or even the only one, which has already received, or has good prospects of receiving, the necessary licence. SAT supplies a local control device (LCD), a product which is used in remote technology. As well as SAT, however, AEG ursatronics and ABB are also present in the market. Siemens has no LCD of its own which is licensed by the EBA.

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82 Doc. 1047, 24.1.2005, Deutsche Bahn's reply to a request for information, questions 21 and 23.

(196) Under the Federal Railways Office's directive on improving tunnel safety, tunnels in Germany must be provided *inter alia* with a contact line voltage tester (CLVT). SAT was hitherto the only CLVT supplier licensed by the EBA. Balfour Beatty too has recently brought out an EBA-approved system, which is based on the SAT system. […]*

(197) The third product concerns junction-related tests (JRTs). This product was developed for the protection design of Deutsche Bahn's contact line installations. It is not yet in use, but will soon be tested and then presented to the EBA for final approval. SAT would then be the sole supplier of such a novel testing system for Deutsche Bahn's contact lines. However, Deutsche Bahn already has an automated system for testing contact lines when switching on a route section (ASTCL). Compared with the ASTCL the JRT testing system is an innovation, since test resistance including the test cell disappear and the product is therefore lighter and smaller.

(198) Siemens does not have any of these three products. Consequently, the number of suppliers present in the market is not altered by Siemens's takeover of SAT. Market foreclosure by Siemens is also improbable. Thus, as before, there are three LCD products, but only one customer. With CLVTs in the past Deutsche Bahn has either provided the general contractor with the product or prescribed it. It is not yet possible to tell whether JRT will supersede the ASTCL. Deutsche Bahn has admitted, however, that innovations in this area can possibly also be generated by other suppliers. It should not be expected, therefore, that the takeover of the VA Tech subsidiary SAT will appreciably restrict effective competition in components for traction power supply.

(199) Both Siemens and VA Tech supply the service of maintaining turbines for generating 16 2/3 Hz traction current. Deutsche Bahn has suggested that, as a result of Siemens's takeover of VA Tech, competition in the market for the high-tech maintenance of such turbines in Germany would be lost on account in particular of the bundling of working drawings and available experience. VA Tech, however, has built only one plant for Deutsche Bahn. The plant, which was built in 1998, was the last of its type, since new plants are only being built on the basis of static inverters. Static inverters are supplied by Areva, ABB and Siemens, but not VA Tech.

(200) Apart from by Siemens, such plants, of which there are about 20 in Germany, have been built by BBC in particular. This business was taken over by Alstom, which continues to supply in this market. There are also firms which, while they do not have the engineering plans, have many years' experience of maintaining and adapting such plants. These include in particular the RWE subsidiary SGB. It should not be expected therefore that the takeover of VA Tech, which has built only one plant, will lead to a significant reduction of effective competition in maintenance.

C4. LEVEL CROSSINGS

(201) Both Siemens and VA Tech supply level crossings. VA Tech operates only in Austria. VA Tech does not have its own product but markets exclusively the BUES 2000 computer-controlled level crossing safety technology of the German manufacturer Scheidt & Bachmann. BUES 2000 is basically an electronic control system and is delivered by VA Tech to Zelisko, a subsidiary of Knorr Bremse, which incorporates it in its level crossings and also supplies it in Austria. VA Tech holds

the operating licences for BUES 2000, which are issued by the Austrian Ministry of Transport. Given these legal barriers to entry, national markets are probably appropriate. Siemens has no sales at all in Austria and is therefore only a potential competitor.

(202) One market participant feared that, after the takeover of VA Tech, Siemens would only supply its own level crossings in Austria. The market surveys have shown, however, that there are no major legal obstacles to transferring the licence to Scheidt & Bachmann, which recently set up a subsidiary in Austria. Scheidt & Bachmann is quite able, therefore, to assume the further marketing of BUES 2000 in Austria.[83] The number of competitors in the Austrian market for level crossings would not therefore be altered by the takeover of VA Tech. Thus the merger would not significantly impede basic competition in the market for level crossings in Austria.

D. FREQUENCY INVERTERS

1. Relevant product markets

(203) Frequency inverters are part of an electric drive. The drive consists of a motor and a switchgear. A frequency inverter is a switchgear which regulates the speed of the motor. To this end the usual ac network frequency of 50 hertz is converted into a higher or lower frequency.

(204) Siemens proposes that the market be divided into simple inverters up to and including 100 kW and heavy-duty inverters of over 100 kW. Inverters up to and including 100 kW are a mass market, while inverters over 100 kW are usually high-tech products tailored to the customer's needs. Frequency inverters with an output of up to 100 000 kW are supplied. Such inverters are used in heavy machine construction and industrial plants, in particular in energy-intensive sectors, such as rolling-mill drives and ships' engines or in the oil and gas industry.

(205) The market investigation revealed that there is a mass market, served by many firms, some of which operate at regional level only. On the other hand the number of firms which can supply frequency inverters with a high to very high output falls as the output required increases. The overwhelming assessment of the market participants surveyed, however, was that 100 kW was an acceptable ceiling for defining the mass market. For the purposes of this Decision, therefore, a limit is placed at 100 kW.

(206) Some market participants thought that the market for frequency inverters over 100 kW should be subdivided further. Thus there is a market for water-cooled frequency inverters and for four-quadrant frequency inverters, which can feed current back again into the network. Water-cooled inverters are used in particular in mining and for tunnel-boring machines. In these applications air-cooled drives are not possible, since the heat and penetrating dust would very quickly put the inverter out of action. Four-quadrant inverters are used, for example, in engine test beds.

(207) Whether a further breakdown by water-cooled inverters and four-quadrant inverters is appropriate can be disregarded for the purposes of this Decision, however, since

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[83] Doc. 5571, 22.3.05, reply from Scheidt & Bachmann.

the competition assessment would not be any different even if separate markets were assumed.

2. Relevant geographic markets

(208) Siemens considers that the relevant geographic market is the world, or at least the EEA. VA Tech, too, opts for a worldwide market. According to Siemens there are only two technical standards worldwide. The IEC standard of the International Electrotechnical Commission applies around the world; only in North America is there a variant standard (ANSI). The IEC applies in the EEA, where there are no variant standards. ABB considers that in the EEA there are definitely variant standards in individual countries. Thus, in the UK the *Harmonics Standard* applies, in Norway everything has to be aligned on 110 kV three-phase current, and in France the earthing has to be different.[84] However, since all major suppliers are in a position to meet these additional requirements, it does not seem appropriate to assume national markets on the basis of these technical provisions.

(209) Siemens maintains that the prices for frequency inverters in the European Union are similar. This was basically confirmed by the market investigation. Since there are neither technical obstacles nor large price differences and the overwhelming majority of replies to the Commission's market survey assumes at least an EEA-wide market, an EEA-wide market is taken as the basis for this Decision.

3. Competition assessment

(210) Suppliers in the market for frequency inverters can be divided into three large groups. In the first are the firms operating on a European or worldwide basis, such as ABB, Alstom, Danfoss, Schneider Toshiba and Siemens. In the second group belong firms such as Vacon and Lenze, which are represented in many countries of the EEA but are regional in emphasis. The last group is made up of small firms, which operate in the up-to-100 kW sector in particular and often actively supply in only one member country.

(211) According to Siemens, the combined market share of the EEA market for frequency inverters ≤ 100 kW in 2003 was [15-20]*% (Siemens [15-20]*%, VA Tech [<2]*%). The market survey broadly confirmed this, as the following table shows:

Inverters ≤ 100 kW EEA		
Competitors	**Turnover 2003, € m**	**Share**
Siemens	[…]*	[15-20]*
VA Tech		[0-5]*
Schneider/Toshiba STI		10-15
Total		[30-40]*

[84] Doc. 4861, ABB, Second questionnaire on inverters, reply to question 13.

ABB		10-20
Alstom		0
Danfoss		10-20
Fuji Electric		0-5
Lenze		5-10
SEW Eurodrive		5-10
Vacon		5-10
Yaskawa/Omron		5-10
Others	0	0
Total	800-900	

(212) The most important competitors are ABB, Danfoss and Schneider with a market share of 10-20% and Lenze, SEW Eurodrive Vacon and Yaskawa/Omron with 5-10%. The market investigation showed, however, that since 2004 VA Tech has been associated with Schneider Electric and Toshiba (Schneider Toshiba Inverter VA Tech, STI VA Tech) in a joint venture, which is planning the joint development and production of inverters both below and above 100 kW. The total market share controlled by Siemens after the proposed merger would be [30-40]*%.

(213) It should be borne in mind, however, that these market share data show the highest possible values, since no value for Others was given in the table. Siemens gives its sales as EUR […]* million, which corresponds to a market share of [20-30]*%. The Commission could not verify this figure. It has established that, apart from a few medium-sized firms operating at local level such as Baumüller, among others US suppliers like Rockwell are selling in the EEA. In any event, therefore, the real market share of Siemens and VA Tech, including STI, is lower than [30-40]*%. Moreover, in this market there are several credible alternatives that operate Europe-wide, such as ABB, Danfoss, SEW and Vacon, which at any time could thwart the attempts of a merged Siemens/VA Tech to raise the prices of its inverters above the competitive price, and a number of smaller manufacturers, which have a strong position locally or nationally.

(214) According to its own figures, after the proposed takeover of VA Tech, Siemens would have [10-15]*% of the market for inverters >100 kW (Siemens [10-15]*%, VA Tech [<2]*%). While the figures for Siemens were confirmed by the market survey, VA Tech's market share is significantly higher, so that the joint market share would be [15-20]*% (Siemens [10-15]*%, VA Tech [5-10]*%). With STI, it would be [20-30]*%. The clear market leader is Alstom with a market share of [30-40]*%, followed by ABB with [20-30]*% and Vacon with [5-10]*%.

Inverters >100 kW EEA		

Competitors	Turnover 2003, € m	Share
Siemens	[…]*	[10-15]*
VA Tech		[5-10]*
Schneider/Toshiba STI		0-5
Total		[20-30]*
ABB		20-30
Alstom		30-40
Danfoss		0-5
Loher[85]		0-5
Lenze		0-5
Vacon		5-10
Others		0
Total	400-500	

(215) Here too it should be borne in mind, however, that this [20-30]*% shows the highest possible value, since no value for Others was given in the table. Siemens gives its sales as EUR […]* million, which corresponds to a market share of [40-50]*%. The Commission could not verify this figure. It has established that apart from firms such as Bombardier and SEW Eurodrive, which have a very small market share, a number of medium-sized European firms, such as Baumüller and Breuer, and US suppliers like Rockwell and Eaton are selling inverters of over 100 kW in the EEA. In any event, therefore, the real market share of Siemens and VA Tech, including STI, is lower than [20-30]*%.

(216) In the case of water-cooled frequency inverters of over 100 kW, which are used in tunnel-boring machines in particular, Siemens and VA Tech have a joint market share of [5-10]*%. The market leaders in this segment are Alstom with 60-70% and ABB with 20-30%. Other substantial suppliers are Vacon Baumüller and the US firm Eaton with its Cutler-Hammer brand. These figures and the existence of credible alternatives are enough to show that Siemens/VA Tech would not be in a position significantly to impede effective competition. Even in the tunnel-boring

[85] Loher is a subsidiary of Flender Holding GmbH. In its decision of 30 June 2005 in case COMP/M.3809 Siemens/Flender the Commission has cleared the takeover of Flender by Siemens. Even if Loher is included, the combined market share of Siemens and VA Tech remains 20-25%.

machines segment with its special requirements, the proposed merger does not raise any competition concerns. In this segment there are basically the two German firms, Herrenknecht and Wirth, and the US firm Robbins, which is also present in Europe; together they meet much of the worldwide demand. The market survey showed that these firms use water-cooled inverters from four different manufacturers, but none from Siemens. Thus the proposed merger does not result in any structural change in this market segment.

(217) In the case of four-quadrant frequency inverters of over 100 kW, Siemens together with VA Tech and STI had a market share in the EEA of [15-20]*% in 2003. The market leader is ABB with 40-50%, followed by Alstom with 20-30%. As well as these large suppliers there are many smaller ones. One cannot conclude from this market share that there are competition concerns.

(218) Four-quadrant frequency inverters are used *inter alia* for engine test beds. The customers are mainly the large motor vehicle groups but also include universities and research institutes. Siemens is active in this downstream market. According to its own data, the world market leader is the Austrian firm AVL List with, according to Siemens, some [40-50]*% of the EEA market, followed by Siemens with [20-30]*% and Schenck Pegasus with [10-15]*%. Of the two main competitors, only AVL List uses VA Tech inverters on a relatively large scale. However, AVL also has other current suppliers and, with ABB and Alstom, credible potential suppliers (whose products would have to be adapted for test bed purposes) which are not themselves active in the market for engine test beds. In addition, there are suppliers offering inverters specially developed for engine test beds, such as the US firm Unico, which has been present in Europe also for some time.

(219) For these reasons the Commission considers that the proposed takeover of VA Tech by Siemens does not significantly impede competition in the market for frequency inverters below and above 100 kW.

E. METAL PLANT BUILDING AND OTHER INDUSTRIAL PLANT BUILDING

1. Relevant product markets

(a)Fundamental distinctions

Distinction according to sectors

(220) In industrial plant building a distinction can be made firstly by sector (metal, chemicals, paper, cement, etc.). Although Siemens and VA Tech are active in several sectors as plant builders, it is particularly important for the purposes of this Decision to take a closer look at metal industrial plant building, since it is in this sector that most of VA Tech's plant building activities are concentrated. In metal plant building there are separate sectors for the manufacture and processing of ferrous and non-ferrous metals. The main non-ferrous metal is aluminium.

Distinction between mechanical plant building, electrical plant building and maintenance and service

(221) A further fundamental distinction exists between mechanical industrial plant building electric industrial plant building and plant maintenance and servicing.

(222) Mechanical industrial plant building plans the use of machines for the relevant industrial production process, obtains these machines and installs them in the production plant. Traditionally it includes the area of process technology, but does not include the civil engineering building of the plant (e.g. constructing the building). Through its subsidiary company VAI, VA Tech acts as a supplier of mechanical plant building. Siemens itself is not active in this area as a supplier, but in the metallurgical sector has an important […]* holding[86] in one of the two keenest competitors of VA Tech, SMS Demag. Through this stake Siemens gains an insight into key aspects of SMS Demag's competitive position. Furthermore, Siemens has its own know-how in metals processing technology.[87]

(223) Electrical industrial plant building includes firstly the general electrification of the plant ("electrics"), the configuration and assembly of drive solutions, consisting of motors and inverters ("drives") and, if necessary, the configuration and assembly of sensors ("sensors"), and secondly the area of actual automation, which basically consists of electric monitoring and control systems as well as of process automation. In addition there is a third area, which concerns IT solutions for plant logistics. Both Siemens and VA Tech act as suppliers in electrical industrial plant building. VA Tech is active in electrical industrial plant building through its subsidiary VAI (in the metallurgical sector) and Elin EBG (in various sectors).

(224) Plant maintenance and plant servicing are not to be confused with plant modernisation, which is a part of both electrical and mechanical plant building. Ongoing maintenance work and service provision are part of plant maintenance and plant servicing, but there is no new designing of parts of the plant. Siemens and VA Tech are both active in the metallurgical area in plant maintenance and plant servicing.

Differentiation by process area and process stage

(225) In the procedurally more complex process industries (such as metals, chemicals, oil and gas), plant building can also be broken down into individual process areas and process stages. In metal plant building, which includes the whole process flow of blast furnace engineering and rolling mill technology, metal production and processing in the iron and steel sector contains the following different stages.

– First of all, metal plant building is divided into process areas. The most important process areas are the blast-furnace area (liquid phase) and the two process areas for the production of flat-rolled products, namely the hot phase and the cold phase. A special area is the rolling of long products. [88]

– The individual process areas can be subdivided by process stage. The blast-furnace area (also known as the liquid phase process area) is made up of ironmaking and steelmaking process stages. The hot phase process area consists of the continuous casting and hot rolling process stages. The cold phase process area consists of the

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86 See reply to the request for information of 29 March 2005, Annex 1a, sheet 30.

87 See paragraphs (253) and (316).

88 Long-rolled products and flat rolled products have the process stages of pig iron making and steelmaking in common, after continuous casting, in which they still display many common features, they are separate. In the production steps after continuous casting, long-rolling (e.g. section rolling) is then clearly separate from the technique for rolling flat products (hot rolling, cold rolling, strip-processing).

cold rolling and strip treatment process stages. The most important process stages in the production of long rolled products are section rolling mills and pipe manufacturing plants. Pressing and forging can be taken as being a separate process stage.

– Fundamental process stages can be broken down further (e.g. into sub-process stages or by type of plant), but these are not relevant to this Decision.

– *(b)Mechanical metal plant building*

(226) Siemens assumes that use of the mechanical part of industrial plants is sector-specific and therefore assumes a separate product market for mechanical metal plant building. However, Siemens does not follow the further subdivision adopted by the Commission in its SMS/Mannesmann Demag decision[89] corresponding to the process stages[90], but assumes that these are only segments of a larger market for mechanical metal plant building. Siemens furthermore argues that there is sufficient supplyside substitutability as also also smaller competitors could ususlly offer mechanical plant building services for various process steps.

(227) In the context of the Commission's market surveys, the majority of market participants were in favour of a further subdivision of the market into the respective process stages or groups of related process stages.[91] In VA Tech's view, only a few suppliers, so-called "full-liners", can supply the mechanical plant for all process stages. According to VA Tech these include its own subsidiary VAI and SMS-Demag and Danieli, whereas smaller suppliers specialise in individual technologies and generally do not win any orders above a certain size. VA Tech also states that because of financing problems, such businesses also have no access to consortia of small suppliers. The Commission shares these views.

(228) It can first be stated that the process technologies of the individual production steps vary enormously and there are no substitution options on the demand side.

(229) Beyond that, the market investigation has shown that the supplier structure in the various process steps of mechanical plant building in the iron/steel sector is clearly different. There is a clearly separate supplier structure not only in in special areas such as pipe production, moulding and forging, aluminium (rolling) plants[92] and copper plants but also for the main process stages of producing flat steel products and long steel products a clear differentiation of the supplier structure can be seen. First, smaller suppliers do not offer in all process steps. E.g., some competitors such as Andritz and MINO essentially offer in the process steps of cold rolling and processing lines.[93] Other competitors such as Paul Wurth and Küttner only supply in

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89 IV/M.1450 - SMS/Mannesmann Demag.

90 Pig iron making, steelmaking, continuous casting plants, hot rolling mills, cold rolling mills, section rolling mills, strip plants, pipe manufacturing plants, pressing and forging, aluminium rolling mills and copper mills.

91 Thus the market survey revealed that the large majority of the market participants surveyed regard the continuous casting process stage as a separate market and that aluminium rolling is to be differentiated from steel rolling for the purposes of the product market definition.

92 It must be noted that there is a clear specialisation of suppliers in the area of aluminium rolling (e.g. by Achenbach and Fata Hunter).

93 This at the same time indicates that there is insufficient supplyside substitution between hot rolling and cold rolling.

iron- and steelmaking. Second, there is even among the „full-liners“ a clear internal specialisation of different subsidiaries and business units with regard to individual process steps. This is reflected in significant variations in the suppliers' self estimates concerning its ranking per process step.[94] Third, the market investigation has shown that not only suppliers but also customers differentiate their market view, as expressed in rankings of suppliers, clearly by process step. Not all full liners are seen as equally good alternatives for each process step. Smaller specialists have only been mentioned in specific process steps.[95] Therefore, there is insufficient supply side substitution between mechanical plant building for the process steps in iron and steel production and processing and in the processing of non-ferrous metals such as aluminium and copper.

(230) For these reasons the breakdown applied in the SMS/Mannesmann Demag decision[96] corresponding to the production stages for mechanical industrial plant building can be retained for the purpose of this Decision. Accordingly, a distinction must be drawn between product markets for pig iron making, steelmaking, continuous casting plants, hot rolling mills, cold rolling mills, strip plants, section rolling mills, pipe manufacturing plants and hot pressing and forging. Likewise in accordance with the SMS/Mannesmann Demag decision, as distinction has to be drawn between metal plant building for iron and steel on the one hand and non-ferrous metals, in particular aluminium and copper, on the other.[97]

(231) Since, for the purposes of this Decision, a division into individual submarkets of mechanical metal plant building (i.e. into the markets for pig iron making, steel making, continuous casting plants, hot rolling mills, cold rolling mills, strip plants, section rolling mills, pipe manufacturing plants and hot pressing and forging, and aluminium rolling, copper and other non-ferrous metal plants) is not absolutely necessary, however, the question of the precise product market definition in mechanical metal plant building can therefore ultimately remain open.

(232) It can also remain open whether a separate overall market for mechanical iron and steel plant building should be assumed or whether an overall market for mechanical metal plant building covers both ferrous and non-ferrous metals. In its notification of the merger project, Siemens assumes, as already mentioned, that there is a larger market for mechanical metal plant building, which comprises the following segments: pig iron making, steel making, continuous casting plants, hot rolling mills, cold rolling mills, section rolling plants, strip plants, pipe manufacturing plants, hot pressing and forging, aluminium rolling mills and copper and other non-ferrous

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94 With regard to the distinction between the process steps ironmaking and steelmaking it must also be pointed out that SMS, as is shown in SMS-internal papers is planning an exit from mechanical plant building for ironmaking (Cf Meeting of the Shareholders' Committee of SMS Demag of 21 March in Munich, presentation of the SMS Board)

95 Market investigation, Phase II - replies to competitor and customer questionnaires. Smaller specialists are moreover usually ranked lower than full liners by competitors and customers in regard to their competitive strength. This also holds true for (isolated) mentionings of specialised non-European competitors. SMS-internal information (Cf Meeting of the Shareholders' Committee of SMS Demag of 21. March in Munich) and infornmation supplied by market participants (Market investigation, Phase II - replies to competitor and customer questionnaires) shows that e.g. with regard to Chinese companies that these are considered capable of a market entry outside China predominantly in ironmaking (and to a much lesser extent in steelmaking and not at all in other process steps).

96 IV/M.1450 - SMS/Mannesmann Demag.

97 See also IV/M.1450 - SMS/Mannesmann Demag.

metal plants. All these sectors, with the exception of aluminium rolling mills and copper and other non-ferrous metal plants, concern process stages in iron and steel production and processing. According to Siemens,[98] […]* The Commission's market survey produced nothing to disprove this. The fact that non-ferrous metals are of secondary importance in mechanical plant building means that, for the purposes of this Decision, the assessment of a possible overall market in mechanical metal plant building does not depend on whether non-ferrous metals are included in such a market or not. Another reason why this is so is that the market strength of SMS and VA Tech in non-ferrous metals (especially in the only significant non-ferrous sector, aluminium rolling) is, according to the market survey, roughly the same as in the cold rolling of iron and steel.[99]

(c) Electrical metal plant building

(1) Overview of the individual electrics and automation areas

(233) Both Siemens and VA Tech are active in the area of electrical metal plant building.

(234) Electrical metal plant building comprises firstly "level 0" automation, secondly actual automation (levels 1 and 2) and thirdly the more recent area of IT solutions for plant logistics/MES (level 3).

(235) Level 0 automation means the electrics (general electrification of the plant), drives and sensors.

(236) Actual automation consists of level 1 and level 2 automation.

(237) The components of level 1 are the IT platform (automation system), the human-machine interface or HMI (the control unit), the basic automation and a series of technological control systems (such as thickness, width, surface evenness and temperature of the metal).[100] Frequently the drive control (as opposed to the drives themselves) is allocated to this area.

(238) Process automation ("level 2") consists of complex mathematical process models for calculating the relevant correct adjustment and conversion of the plant (segment) and the quality of the products produced, taking the individual pre-calculated production parameters as a basis and processing a large number of individual production measurement data.

(239) IT solutions for plant logistics, also known as manufacturing execution systems (MES) or level 3 automation, are a rapidly developing special area, which is no longer part of the automation itself, but also forms part of electrical metal plant building in the broad sense. These are essentially integrated solutions for controlling and monitoring the logistics of a production plant.

(2) No uniform market for electrical industrial plant building: at least a separate market for electrical metal plant building

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98 Notification of the merger project (Form CO).

99 See below, paragraph (319).

100 The concept of the technological control system (TCS), however, is also generally applied to level 1/level 2.

- *Siemens' standpoint*

(240) Siemens does not assume that electrical industrial plant building for the metallurgical sector is a separate market, but takes the view that electrical industrial plant building is as a whole independent of any sector. According to Siemens, tailoring the products and services to a specific use such as the metallurgical sector takes place through process technology. Consequently, applying this line of argument, the fact that among electrical plant builders a certain focusing on particular customer segments for strategic reasons is not unusual does not invalidate the general nature of electrical industrial plant building.

(241) Siemens emphasises in the statement on the decision under Article 6(1)(c) of the Merger Regulation and in the comments on the statement of objections [*There follow comments on the use of standardised products*]*

(242) Siemens also indicates that major electrical industrial plant builders are active in various sectors. Sector-related specialisation is the exception among the suppliers of electrical industrial plant.

(243) Finally, Siemens says [*There follow comments on the level of specialisation of the engineers used and on the importance of references* [101]]*

- *Results of the market investigation*

(244) In the context of the market investigation carried out by the Commission, however, the majority of market participants felt that special know-how was necessary for constructing electrical plants in the metallurgical sector.

(245) Competitors particularly stressed the specialisation of their metal plant building engineers in their statements.

(246) Siemens' citing of the limited degree of specialisation of its metal plant building engineers is not conclusive on this point. [*There follow comments on the importance of the level of skills of the engineers employed and on the internal organisational structure of Siemens*]* [102] Also, from other statements made by Siemens, it is unlikely that there is a low degree of specialisation among staff.[103]

(247) Furthermore, the frequently mentioned importance of reference lists in the replies to the market investigation suggests that the majority of customers demand relevant experience in the metallurgical sector from the respective suppliers. […]* [104]

(248) In addition to this, the view of the market […]*.[105] [*There follow comments on the sector-specific or non-specific nature of electrical metal plant building*]*.[106] This fact alone indicates that a separate product market is assumed.

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[101] See, for example, presentation text "Discussion with DG Competition on 15.4.2005".

[102] […]*

[103] […]* (reply to the request for information of 29 March 2005, Annex 1.c, sheet 45).

[104] […]*

[105] Reply to the request for information of 29 March 2005. […]*

[106] See reply to the request for information of 29 March 2005. […]*

(249) Marketing in electrical metal plant building is sector-specific. [*There follow comments on marketing expenditure* .[107]]*

(250) [*There follow comments on Siemens' research and development activities…*[108]]* This […]* research activity is reflected in a significant number of patents.[109] VA Tech also has a considerable number of copyright-protected developments for electrical metal plant building. [*There follow comments on Siemens' research and development activities*]*[110]

(251) The significant development costs and the long time it takes to develop products and services were also confirmed in the Commission's market investigation.[111]

(252) A further indication of an increasing sector-related specialisation is the advance of the earlier mechanical metal plant building specialists, Danieli, SMS Demag and VAI, into the area of electrical metal plant building. These companies are almost exclusively active in a sector-specific way in metal plant building. Market share gains by these companies confirm the trend toward sector specialisation in electrical metal plant building. Even medium-sized companies such as Küttner, MINO, Kleinknecht and Gefeba are focused very strongly or exclusively on metal plant building.

(253) This trend towards specialisation in the metallurgical sector, in which, in both mechanical and electrical metal plant building, specialised process technology know-how is needed (and not only, as perhaps in the past, in mechanical industrial plant building) [*There follow comments on the availability of process-technology know-how at Siemens and on the internal assessment of mechanical metal plant building by Siemens*]* [112] [113]

(254) Through this moving closer together or meshing of mechanical and electrical metal plant building, electrical metal plant building too is becoming increasingly sector-specific.

(255) The Commission's market investigation also showed that in the area of electrical equipment, drives and partly also sensors (i.e. in the level 0 area), at product and component level there is only relatively little specialisation.[114] Electrical and drive

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107 Siemens' reply to the Commission request for information of 2.3.2005, Annex 10.

108 Siemens' reply to the Commission request for information of 2.3.2005, Annex 9.

109 Siemens' reply to the Commission request for information of 2.3.2005, Annex 8.

110 […]*

111 One competitor stated that the costs of developing products and solutions for this industry are so high that only major global companies could think about going into this business (anonymised results of the market survey).

112 See, for example, the sheet which was presented by Siemens at the discussion with the Commission on 23 March 2005 […]*.

113 […]*

114 For example, one competitor referred to special requirements of engines used in the rolling mill sector which need to be particularly shock-resistant. Siemens replied that even engines which are used to drive winding gear in underground and opencast mining, paper machines or on ships must have comparable high shock tolerance. For the purposes of this investigation, however, it is not necessary to decide this question, since VAI does not make such engines. While the fellow subsidiary Elin EBG manufactures drives, the market survey shows that they are comparatively insignificant for metallurgical applications.

products and sensors of measuring instruments (components) used in metal plants can also be used in other industrial plants in a similar form.

(256) On the other hand, this does not apply to the products in the area of automation proper (levels 1 and 2), where increasing specialisation is being seen. Indeed, it is also true here that certain HMI products and IT platforms (automation systems) are exhibiting general characteristics.[115] What is important, however, is that these systems require special sector solutions (software modules) in order to be usable.[116] Siemens and its competitors develop sector solutions such as these in electrical industrial plant building in sector-specific product families, the core use of which is in the level 1 and level 2 areas of automation. For example, Siemens has two of these sector-specific product families ("Simelt" for the blast furnace area and "Siroll" for the rolling mill area), SMS Demag has one ("X-Pact" for the whole metallurgical area),[117] as has VAI ("Vaioneer").

(257) In any case, from the buyer's point of view, the products and services of other electrical metal plant building, with the exception of non-specific individual components, are not exchangeable with the products and services of electrical industrial plant building. From the supplier's point of view as well, clear specialisation in electrical metal plant building is necessary which, as in the case of Siemens, does not conflict with the parallel development of a general electrification and automation basis.

- *Discussion of Siemens' opinion in the comments on the statement of objections*

(258) Siemens refers in its comments to what it sees as the high degree of supply substitutability, since solutions rely on standardised products, which only need a little sector- and customer-specific adaptation, suppliers require specialised engineers only to a slight extent and there are no particular obstacles to suppliers from (other) electrical industrial plant building starting to operate in the metallurgical sector.

(259) Siemens' argument is not valid. First, while metals-specific products and services (solutions) often rely on general products and services that can also be used in other industries, the sector-specific value added is so significant that it cannot be developed and supplied at all for a large number of the products and services required by customers without spending considerable extra time and money. This applies in particular to the in-line aspects of these products and services, and especially to the area of automation proper. To put it at its starkest, many firms may be able to supply the lighting installations or even the power supply for a metal plant without special metallurgical experience, but they cannot supply the appropriate

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115 […]* Even with Simatic TDC the Siemens product information stresses its use in the metallurgical sector: "The most complex control loops in the shortest scanning times are calculated with it, such as is needed in large plants in the blast furnace and rolling mill sector." (http://www2.automation.siemens.com/simatic/regelsysteme/html_00/produkte/rb-tdc.htm).

116 Anonymised results of the market survey: one competitor declared that of 4 specific products/solutions which he developed for electrical metal plants, only one of the products can be used to more than a small extent in other electrical industrial plants and two of these products cannot be used at all in those plants. […]*.

117 "X-Pact [is] one of the most successful sector solutions in the world of blast furnace and rolling mill engineering." (SMS homepage).

technological control and regulatory systems or the quality control and calculation models for the actual production process, where, according to market participants, there are considerable barriers to entry. When, as regularly happens, a contract is awarded for the all the electrical installations in a plant, including the metallurgy specific aspects (i.e. a total package including components purchasing, systems integration and equipment installation and putting into service), there is insufficient supply substitution among suppliers operating in other sectors. This accords with the view of a clear majority of customers that electrical plant building in the metallurgical sector should be regarded as sector-specific.[118]

(260) Second, given the results of the market survey, it is not correct that suppliers require specialist engineers only to a slight extent. A majority of suppliers indicated even that electrotechnical plant building engineers operating in the metallurgical sector are often "highly" specialised in metallurgy.[119]

(261) Third, for the reasons mentioned (need to build up specific metallurgical know-how, need for metallurgical references, costs incurred by and time required for this), there are particular obstacles to suppliers from electrical industrial plant building starting to operate in the metallurgical sector.[120]

(262) For the reasons given, therefore, for the purposes of the product market definition in this Decision, electrical plant building is assumed to be specific for at least the metallurgical sector.[121] As emerges from the discussion below of IT solutions for plant logistics/MES/level 3[122] and of aluminium hot and cold rolling,[123] such an overall market can be defined either as an overall market for electrical metal plant building including all possible submarkets discussed below or, more narrowly, as a possible overall market for electrical metal plant building at automation levels 0-2 in the iron and steel sector.[124]

(3) Possible separate markets for individual process areas or steps

(263) Market participants, moreover, assume that the market for electrical plant building is further subdivided by metal manufacture process stage.[125] Thus a clear majority of responding competitors stated that their electrotechnical engineers working in metal plant building have either a "certain/partial" or even a "strong" intra-metallurgical specialisation.[126]

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118 Results of the market survey, Customers, Phase I.

119 Results of the market survey, Competitors, Phase II. More than two thirds of the responding competitors assumed that their electrotechnical plant building engineers were either highly or partly specialised in metallurgy.

120 The example of an "entry" cited by Siemens should be understood as such. At best, it is a partial entry, as is clear from the following statement of this market participant: "Our focus is only the steel market in Upper Austria. As we are doing business there for only 5 years, we are not able to answer this question properly." [NB The question concerned the listing of competitors operating in a particular process stage.] In the reply to the statement of objections, Siemens does not go into these barriers to entry specifically.

121 Siemens itself notes in this respect, in its comments on the statement of objections, that such an approach "can still be justified possibly" (p. 9).

122 See paragraph (274).

123 See paragraphs (271)-(273).

124 See also paragraph (275).

125 See explanation of process stages in paragraph (225).

126 See replies to the competitors' questionnaire Metallurgy, Phase II.

(264) References to a more extensive subdivision of the relevant product markets can also be found in Siemens' internal papers.[127] Similarly, Siemens' product development takes account of the differences in process areas and process stages. Siemens clearly distinguishes the liquid phase process area terminologically and in marketing terms from the hot and cold phase process areas by using the product family name "Simelt" for the former and "Siroll" for the latter. [*There follow comments on the Simelt and Siroll product families and the relevant internal assessment of the competitive situation by Siemens. …*]* [128] [129]

(265) The main technological requirements are also clearly different for each process area: while in the liquid phase the controlling of the smelting process and what happens during smelting is paramount, it is the rolling process which is the defining element for both the hot rolling and the cold rolling phase. In addition to this, in the hot phase the controlling of the cooling process is of central importance, while surface evenness monitoring and controlling are of decisive importance for the cold phase. There are even clear technological differences within the process areas for the individual process stages.[130]

(266) The Commission's market investigation showed that among […]* competitors there are comparable internal differentiations by process area and process stage, e.g. separate business units. Competitors also arrange their marketing very differently according to the individual process areas and process stages.[131]

(267) Reference lists are drawn up per process stage and, as the Commission's market investigation has shown, orders are mainly awarded separately for one process stage. Suppliers must therefore try to be able to offer as complete an automation package as

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[127] See the sheet in the Siemens presentation "Discussion with DG competition on 15.4.2005 and GSL Jour Fix, 29.1.2001, Annex 2. Reply to the request for information of 7.4.2005 (part 2). Reply to the request for information of 29 March 2005, Annex 1.b, sheets 6 and 7 and Annex 1.d, sheet 4. Reply to the request for information of 29 March 2005, Annex 1.n, sheet 85. […]* Reply to the request for information of 29 March 2005, Annex 1.a, sheet 37. […]* See reply to the request for information of 29 March 2005, Annex 1.n, sheet 33. See also Siemens' reply to the request for information of 7 April 2005, Annex 4 […]* Reply to the request for information of 29 March 2005, Annex 1.c, sheet 4. […]* See also "Innovation Roadmap IP 3 Hot" as well as "Innovation Roadmap IP 3 Cold". Reply to the request for information of 29 March 2005, Annex 1.b., sheets 34 and 35. […]* Reply to the request for information of 29 March 2005, Annex 1.a, sheet 18 […]*.

[128] Reply to the request for information of 29 March 2005, Annex 1.n, sheet 33.

[129] […]* Reply to the request for information of 29 March 2005, Annex 1.c, sheet 6.). Sheets 8, 12 and 13 […]*

[130] Thus the Commission's market survey clearly revealed that the technological regulating systems and control models for level 1 and 2 automation show considerable technological differences between the continuous casting and hot rolling process stages. For instance, in continuous casting, the element of rolling controlling found in hot rolling is lacking. There are also clear differences between hot rolling and cold rolling. In strip processing lines, drive solutions are substantially simpler than in cold rolling plants etc.

[131] See for example the tender lists submitted by competitors, including VA Tech's list. See on this also VA Tech's information brochure: "The World of VAI Automation" (www.vai.at), in which electrical metal plant building is broken down into the following individual areas: "Ironmaking", "Steelmaking", "Continuous Casting", and "Rolling/Processing". The "Rolling/Processing" area is subdivided further by VAI in this brochure as well as in other parts of the homepage into "Hot Rolling" (hot rolling of strip steel, so-called hot strips), "Plate Mill" (hot rolling of steel plates, so-called thick plate mills), "Cold Rolling", "Strip Processing" as well as "Long Product Rolling" and "Aluminium Rolling". The last area mentioned in this brochure, "Plant-wide Solutions" refers to Level 3/MES. See also SMS's website and its automation brochures.

possible for each process stage. Both the costs of entering the market for each process stage and the development time are considerable.[132]

(268) In addition to the above division into process areas and process stages it should be noted, on the basis of the findings of the market survey, that there are clear signs that the rolling of long products forms a separate product market to the flat-product hot and cold rolling process stages, with different technological requirements, different customers and suppliers set up differently.[133]

(269) For the purposes of this Decision, however, it can ultimately be left open whether separate electrical product markets exist for the three main process areas of electrical metal plant building (liquid phase, hot phase, cold phase) and the special area of long product rolling. Similarly, the question of a further subdivision by process stage can be left open for the purposes of this Decision.

(4) Separate sub-markets for level 1 and 2 automation

(270) As to whether for the purposes of defining the relevant product markets a distinction should be made according to the individual levels of automation, in particular levels 0, 1 and 2, the market survey showed that both demand and supply in the individual automation levels are different overall and as regards each process stage. For the purposes of this Decision it can remain open, however, whether separate product markets should be assumed, say, for levels 1 and 2 together, or subsets thereof, or for level 0.[134]

(5) Separate markets for the iron and steel sector and the aluminium sector, in particular for aluminium hot and cold rolling

(271) The distinctiveness of the electrical iron/steel plant building markets in the process stages which come *before* hot and cold rolling in the manufacturing process is evident from the very fact that Siemens and VA Tech, like other major suppliers in the iron and steel sector, are hardly active, if at all, in the corresponding areas outside the iron and steel sector. There is therefore insufficient supply and demand substitution.

(272) In the context of the Commission's market survey, it was also said that aluminium hot and cold rolling too (including foil rolling), in which Siemens and VA Tech are active, form separate product markets. This was justified by the different process

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132 See anonymised results of the market investigation: "One competitor explained that development work for various specific products/solutions for hot rolling steel mills took 3-10 years."

133 Reply to the request for information of 29 March 2005 (Annex 1.a, slides 37 and 38). […]* See also the clearly different assessment of customers (and competitors) concerning the list of suppliers in long product rolling and flat product rolling. In the case of long products, Danieli clearly heads this assessment, while in the rolling of flat products (both in the process stages and, aggregated, in the process areas) it clearly comes behind other market participants, such as Siemens, VAI and SMS. The replies of competitors to the question whether for long product rolling other software for technological control modules and models is necessary than for the hot rolling of flat products also suggest a separation into different product markets.

134 In the context of this Decision, however, level 0 does not need to be discussed further in the metallurgy part, since the products in question, in so far as horizontally affected markets are present, are discussed in the sections on energy transmission and distribution (T&D) and drives. On the absence of vertical effects, see generally paragraphs (397) – (400). On the question of further delimitation regarding level 3 automation (IT solutions for plant logistics) see paragraph (274) below.

engineering requirements for steel and aluminium, in particular in the hot rolling process, especially as regards temperature behaviour, rolling speed and surface characteristics.

(273) For the purposes of this Decision, however, the question of product market conformity/separation as between the rolling markets in the iron/steel and aluminium sector can also remain open.

(6) Possible market for IT solutions for plant logistics/MES/Level 3

(274) The Commission's market investigation also revealed a number of indications of a separate, possibly emerging metals-specific product market for IT solutions for plant logistics/ MES/level 3.[135] However, the question of the latter's sector specificity and its inclusion in, or separation from, an electrical metal plant building market can ultimately be left open for the purposes of this Decision, since, although in this sector there is product overlapping between Siemens and VA Tech, no competition concern was established in the Commission's market investigation, however the product market was defined. From today's standpoint at any rate this area is not part of electrical metal plant building proper in the narrow sense (levels 0-2).[136] Moreover, the precise product market definition of the IT solutions area for plant logistics/MES/level 3 can remain open for the purposes of this Decision.

(7) Two possible overall markets for electrical metal plant building

(275) It should be repeated for the sake of clarification (see paragraph (262)) that, as a result, two possible "overall markets" for electrical metal plant building should be investigated: (i) an overall market for electrical metal plant building, including all the possible electrical metal plant building submarkets mentioned, and (ii) a possible (more narrowly understood) market for electrical metal plant building at automation levels 0-2 in the iron and steel area (i.e. excluding the possible markets for aluminium rolling and IT solutions for plant logistics/MES/level 3).

(d) Maintenance and servicing

(276) The activities of Siemens and VAI also overlap in the field of maintenance and servicing of industrial plant, in particular in electrical metal plant.

(277) Siemens assumes a separate service market for providing services to metal plants, which, in addition to carrying out maintenance work, also includes advisory and support services such as education and training events.

(278) […]* [137]

(279) The Commission's market investigation has shown that such services are indeed to a large extent separate from actual plant building and are sought from other suppliers.

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[135] […]*. Reply to the request for information of 29 March 2005, Annex 1.c, sheets 15-20). […]* (See, for example, reply to the request for information of 29 March 2005, Annex 1.k, sheet 46 and all similar points. […]*

[136] […]*

[137] See for example reply to the request for information of 29 March 2005, Annex 1.k, sheet 46 and all similar points. […]*

Furthermore, a considerable proportion of these services is looked after by the buyer itself. Given the results of the market investigation[138] it can be concluded, however, that the area of maintenance and service provision is not part of the electrical metal plant building market. For the purposes of this Decision, however, a more comprehensive, precise market definition can be left open in this area.

(e) Electrical industrial plant building in non-metal sectors

(280) As mentioned, Siemens assumes a common product market for all areas of electrical industrial plant building.

(281) In non-metal electrical industrial plant building, VA Tech operates exclusively through its subsidiary Elin EBG, unlike in metal industrial plant building where it is (mainly) represented by its subsidiary VAI. Electrical installations are manufactured in particular for plants in the motor vehicles, oil and gas, pharmaceuticals, paper, cement and food, beverages and tobacco industries. Siemens operates in particular in the oil and gas, pharmaceuticals, paper, cement and food, beverages and tobacco industries.

(282) For the purposes of this Decision, the question of the sector-specific market definition of non-metal electrical industrial plant building can be left open, since the proposed merger does not raise competition concerns under any possible market definition (i.e. either as a market covering several sectors or as a separate market per sector).

(f) Summary of the product market definition in metal plant building and in industrial plant building in other sectors

(283) For the purposes of this Decision, therefore, in the area of mechanical metal plant building, the following product markets are assumed:

– an overall market for mechanical metal plant building (either restricted to ferrous metals or comprising both ferrous and non-ferrous metals);

– the possible submarkets for mechanical metal plant building (see paragraph (231)).

(284) For the purposes of this Decision, in the area of electrical metal plant building, the following product markets are assumed:

– the overall market for electrical metal plant building, including all possible consequent submarkets;

– the possible (more narrowly understood) overall market for electrical metal plant building at automation levels 0-2 in the iron and steel sector;

– the possible submarkets for electrical metal plant building of the liquid phase, hot phase, cold phase and rolling of long products (process area markets) in the iron and steel sector and the possible process stage markets (or further subdivisions e.g. by automation level), and possible level 1 and 2 submarkets;

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[138] […]* See reply to the request for information of 29 March 2005, Annex 1.i, sheet 14 […]* Reply to the request for information of 29 March 2005, Annex 1.c, sheets 21-32). […]*

– the possible markets for aluminium hot and cold rolling;

– the possible market for IT solutions for plant logistics/MES/level 3.

(285) For the purposes of this Decision, moreover, at least one separate product market should be assumed for metal plant maintenance and servicing.

(286) The product market definition in electrical industrial plant building in other sectors can be left open for the purposes of this Decision.

2. Relevant geographic markets

(a) Mechanical metal plant building

(287) Siemens assumes that the market for mechanical metal plant building is a world market. It asserts that, in the context of tendering procedures, there is a worldwide demand for the services in this area. The products and services are basically the same in all parts of the world and aimed at the – globally uniform - physical, chemical and mechanical characteristics and properties of metal processing. Quality differences between the plant builders operating worldwide play no part, only price determines which supplier is selected. However, prices do not vary greatly worldwide. Transport costs in particular are of no consequence in this area.

(288) In its comments on the statement of objections, Siemens takes the view that the market is at least EEA-wide, with a strong tendency to become worldwide.

(289) The Commission's investigations have revealed that demand in this area is EEA-wide and possibly even wider. While within the EEA there are definite remnants of national and language-area-related demand patterns,[139] the essential competition parameters are at least EEA-wide. However, so far in the EEA non-European suppliers have clearly been awarded orders only on a small scale. Even if, according to the market participants, transport costs scarcely play a role in this respect, the majority of customers perceive the quality of European products[140] to be more reliable. Historical closeness to the supplier clearly also plays a part, as do the costs of regional market entry (e.g. through the need to set up engineering branches without having already worked out their capacity utilisation). It should also be noted that regional price comparisons in this heterogeneous market/these very heterogeneous markets are very difficult. However, the Commission's market investigation showed that the general price level of metal plant building in China is lower.[141] The remarks in paragraph (299) below, which apply in this respect to mechanical metal plant building too, should also be noted.

(290) The European suppliers, at any rate the large ones, are organised globally, however, in the sense that they relate to several continents and make a large proportion of their turnover outside the EEA.

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[139] The reasons given for this were partly different legal provisions as well as tenders written in the language of the country. Furthermore, the geographical proximity to the customer, in particular in connection with support in problems of a technical nature, seems to play some role.

[140] Where European firms also use non-European components, this also applies to the European quality control/guarantee of these non-European components.

[141] […]*

(291) For the purposes of this Decision it is not necessary, however, to decide the question of geographic market definition, since under each possible geographic market definition (EEA-wide or wider than the EEA), the concentration gives rise to competition concerns. The same applies for the same reasons to all possible submarkets in mechanical plant building.

(b) Electrical metal plant building

(292) In the area of electrical industrial plant building, too, Siemens assumes that there is a world market and asserts that particularly in large projects tenders and bids take place on a global level. Siemens also says that the end-customers are predominantly internationally active companies which operate plants in several countries.

(293) In this area too, the Commission's findings have revealed that demand from the majority of the customers in the EEA for electrical metal plant building is EEA-wide. Even if, in this area, transport costs play a rather subordinate role, the geographical or linguistic proximity to the respective suppliers still appears to customers to be important, in order to be able to make contact rapidly and without complications in the event of technical problems. Even within the EEA certain customer preferences[142] for or against certain suppliers and certain regional strengths and weaknesses still result from this and from historical links, but from the point of view of most of the customers and suppliers these features do not invalidate the assumption of an, at least, EEA-wide geographic market.

(294) […]*[143] […]*[144] For the efficient handling of project orders it is also necessary to have strong regional branches, just as the involvement of local value added greatly increases the chances of a bid being accepted or is even a precondition for winning an order.

(295) Asian companies in particular have so far hardly received any orders in the EEA. Conversely, successful business activity appears to many European companies to be difficult, for example, in Japan because of the existing competition situation. In discussions about the market by European companies, it is typically assumed that there is a theoretical world market volume and a clearly smaller "accessible" world market volume. […]*[145] Even if European customers require European suppliers to operate successfully worldwide (and therefore to be able to produce extra-European references as well), this does not allow the opposite conclusion that non-European suppliers without references in the EEA are seen by European customers as equivalent alternatives to European suppliers. The small number of EEA references for non-European suppliers is thus also an obstacle to extending the relevant geographic market.

(296) On the other hand it was clear from the Commission's market survey that a not inconsiderable number of customers considered that it was quite possible that in the next 2-3 years Japanese companies would enter the European market and therefore

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142 Reply to the request for information of 29 March 2005 […]*

143 Reply to the request for information of 29 March 2005, Annex 1 b sheet 11 […]*

144 Reply to the request for information of 29 March 2005, Annexes. […]* Reply to the request for information of 29 March 2005, Annex 1.c, sheet 6.).

145 […]*Reply to the request for information of 29 March 2005, Annex 1.1, sheet 5: […]*

appeared not to have fundamental quality reservations about these companies.[146] It does not yet follow from this information, however, that there is sufficient effective, direct supply substitutability.[147]

(297) It therefore seems appropriate for the purposes of this Decision to define the market as at least EEA-wide. Whether the market is EEA-wide or worldwide can, however, remain open for the purposes of this Decision.

(298) This applies for the same reasons to all the possible electrical metal plant building submarkets and markets, including the possible market for IT solutions for plant logistics/MES/level 3.

(299) In considering the competitive position of the individual competitors, the following is to be taken into account.

– Even if the analysis is confined to a market which is only EEA-wide, consideration of the worldwide market shares of the competitors which are strong in the EEA is relevant. European customers have predominantly said that it is absolutely necessary even for a European competitor to be a strong supplier worldwide. Therefore, for marketing reasons too, worldwide market successes are of great importance for European competitors. Worldwide market shares of European competitors also give information about the market strength of these competitors in large projects and help to prevent a distortion due to possibly too small (and therefore not sufficiently representative) order volumes in Europe. This is of course particularly true for smaller submarkets.

– Even if it is assumed that there is a world market in the sense of a geographic market which extends beyond Europe and encompasses several continents, market relations on such a worldwide market are by no means homogeneous. It is even possible that a considerable part of the hypothetical world market volume is not accessible due to regional peculiarities or follows different market rules. For instance, in the Peoples' Republic of China - one of the most important customers on such a world market for electrical metal plant building - the volume of plant building continues to be strongly controlled. [*There follow comments on Siemens' internal assesment of the demand situation in China and Japan*]* [148] [149]

(300) Siemens agrees with the Commission's geographic market definition in electrical metal plant building only in so far as the Commission considers the possibility of a market which extends beyond the EEA, but it rejects the view that certain Asian regions cannot be included in the relevant market. The corresponding submarkets are completely accessible even to foreign suppliers.

(301) The Commission maintains its view, however, that certain geographic world regions have clearly different competitive behaviours. As established, it can however remain open whether there is an EEA-wide or a worldwide market (the latter

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[146] Account should be taken, however, of the constraint expressed in paragraph (324) regarding this expectation, which also applies mutatis mutandis to electrical metal plant building.

[147] Within the meaning of the Commission notice on the definition of the relevant market for the purposes of Community competition law (OJ C 372, 9.12,1997, p. 13, paragraph 20).

[148] […]*

[149] See […]* Reply to the request for information of 29 March 2005, Annex 1.1, sheet 20, […]*.

including/excluding in particular Japanese demand and a possibly "inaccessible" part of the Chinese market).

(c) Maintenance and servicing

(302) From Siemens' point of view, the market for servicing and maintenance work is to be defined as being EEA-wide, but is perceived by the majority of market participants as being narrower, since geographical proximity to the supplier and partly also sharing a common language are seen as being particularly relevant here. A number of customers would also not select a supplier from a different Member State than the location of their own production site, if the prices for services from their current suppliers were to rise by 5-10%. This applies to both the mechanical and the electrical sector.

(303) For the purpose of this Decision, a precise market definition can ultimately be left open. The relevant geographic market, in any event, is not smaller than national and not bigger than EEA-wide.

(d) Electrical industrial plant building in other sectors

(304) The corporate organisation of VA Tech, with the metal plant builder VAI as a company operating worldwide and Elin EBG which provides electrical plant building generally, is largely concentrated in Austria and is also increasingly active in industrial plant building in central Europe, suggests that the market/markets for other electrical industrial plant building should be defined more narrowly in geographical terms than those for specialised electrical metal plant building. This view was confirmed in the Commission's market investigation, where many of the responding industrial firms assumed, if anything, national markets or markets comprising several Member States in their replies. If necessary, a larger than transnational regional geographic market can be considered for some specialised process industries, such as paper and chemicals. But there were no indications in the Commission's market survey that the geographic market should be perceived as bigger than the territory of the EEA.

(305) For the purpose of this Decision, a precise market definition can ultimately be left open. The market/markets concerned, in any event, are not smaller than national and not bigger than EEA-wide.

3. Competition assessment

(a) Mechanical metal plant building

(306) The merger would lead, essentially as a result of Siemens' shareholding in SMS and the special rights arising from this shareholding, in the EEA-wide or worldwide market for mechanical metal plant building or its submarkets for mechanical plant building for steelmaking and for continuous casting to a substantial weakening of competition between Siemens/VA Tech and its main competitor SMS. This in turn would lead to a significant impediment to effective competition in the above-mentioned submarkets in particular as a result of the creation of a dominant position on the part of Siemens/VA Tech.

(1) Market conditions

(307) Only VA Tech, and not Siemens, is active in this area. According to Siemens, in 2003 VA Tech's share of the world market came to less than [5-10]*% and of the EEA market to less than [10-15]*%. Looking at individual submarkets, Siemens assumes that VA Tech's shares in mechanical plant building in pig iron making and steelmaking and also in continuous casting at EEA level are about [5-10]*%. Regarding the other possible submarkets (hot rolling mills, cold rolling mills, section rolling mills, strip mills, pipe mills, pressing and forging, aluminium rolling mills and copper plants), Siemens estimates the EEA-wide share of VA Tech at about [10-15]*%.

(308) By contrast, market participants assumed considerably higher market shares for VA Tech in individual possible product markets in mechanical plant building. Thus, the worldwide and EEA market shares of VA Tech in the mechanical metal plant building market were seen in some cases as being close to those of the previous sole market leader SMS-Demag (hereinafter: "SMS") (followed by the third and only other complete supplier active in the EEA, Danieli). In individual possible mechanical submarkets VA Tech is in any case seen as the clear market leader.[150] Statements by market participants also suggest that the market or markets for mechanical metal plant building are to be regarded as highly concentrated.

(309) Siemens' internal documents and documents drawn up on its behalf do not confirm the above market view presented by Siemens within the framework of this proceeding.

[*There follow comments on Siemens' internal strategic and analytical investigations of the competitive environment*]* [151] [152] [153] [154] [155]

(310) SMS sees VAI as its main competitor in most of its business areas. SMS gives its own market shares and those of VAI in mechanical metal plant building overall as [20-30]*% and [20-30]*%. In individual process stage markets the combined market shares of the two leading firms are significantly higher, namely in steelmaking ([30-40]*%, [30-40]*%), continuous casting ([20-30]*%, [60-70]*%), hot rolling ([50-60]*%, [15-20]*%) and cold rolling ([40-50]*%, [10-15]*%).[156]

(311) At the shareholders' committee meeting of SMS GmbH/MDKM of 18 May 2004 a planning document for 2004/2005 was presented. This shows the market share in mechanical metal plant building of SMS and its competitors for the period 1999-2003. SMS is considered to have a share of [30-40]*%, VAI [15-20]*%, Danieli [10-15]*%, Japanese suppliers [5-10]*% and "others" [30-40]*%. In individual process stages SMS and VAI have a much larger market share (e.g. steelmaking/converters: SMS Demag: [40-50]*%, VAI [30-40]*%; continuous

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150 See paragraph (319) for details.
151 […]*
152 […]*
153 […]*
154 […]*
155 […]*
156 SMS, Key Document.

casting/slab casting: SMS Demag: [20-30]*%, VAI [50-60]*%).[157] By and large, the latter figures are confirmed publicly by VAI.[158]

(2) Overall market for mechanical metal plant building in the area of iron and steel or overall market for mechanical metal plant building including non-ferrous metals: significant impediment to effective competition

(312) […]*,[159] on the basis of the facts it cannot be assumed that solely with the removal of this potential competition there would be a significant impediment to effective competition in the common market.

(313) The Commission's market investigation has shown, however, that the merger would lead to a substantial weakening of the current competition between VAI and SMS owing to Siemens' minority stake in SMS. Because of VAI's market strength in this highly concentrated market and the very close competition between VAI and SMS[160] and because other competitors alone would not be able to restrict Siemens/VAI's competitive room for manoeuvre sufficiently, the merger would in any event pose a significant impediment to effective competition through uncoordinated behaviour and possibly also by creating a dominant position for Siemens/VAI.

(a) VAI and SMS are the market leaders in a highly concentrated market

(314) VAI and SMS are the strongest competitors in the highly concentrated market for mechanical metal plant building, as can be seen from the remarks made at the beginning on market structure.

(315) […]*

(316) […]*[161]

(317) […]*[162]

(318) Thirdly, the importance of market shares in tender markets is relative and must be interpreted in the light of the specific impact of the merger proposal on bidding behaviour.

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157 […]*

158 "VAI has become the world market leader in slab casting technology. During the past five years, for example, our company has supplied 43% of all new slab casters and carried out 62% of all slabcaster upgrading projects." "VAI is one of the pioneers of slab casting technology. This is reflected by numerous trailblazing developments." "With a share of nearly 60% of all stainless-steel slab casters supplied during the past eight years, VAI is the world market leader in this field." (http://www.vai.at/view.php3?r_id=198&LNG=EN).
Further remarks in the same place referring to technological leadership are: Strip casting "is perhaps the most exciting leapfrog technology in the iron and steel industry today" "Eurostrip®: ThyssenKruppSteel, Usinor and VAI – more than 1000 patents in 100 patent families" – (two plants in Krefeld and Terni).

159 See, for example, reply to the request for information of 29 March 2005, Annex 1.n, sheet 17, See reply to the request for information of 29 March 2005, Annex 1.l, sheet 17 […]* and sheet 14 […]* .

160 See the results of the market survey, Phase II, in particular as regards the ranking of the market leader and closest competitor.

161 See also paragraph (312) on the potential competition from Siemens, whose elimination must be included in an overall view of the effects of the merger on mechanical metal plant building.

162 Reply to the Commission's request for information, submitted on 1 March 2005.

(b) VAI and SMS are particularly close competitors

(319) VAI and SMS are the closest competitors in the relevant market or markets. Because of this close competition between VAI and SMS, a customer who decides against VA Tech in a particular metallurgical project would very probably regard SMS as the next best alternative. This is shown, for example, by the ratings given by the competitors and customers questioned during the Commission's market investigation. VAI was regarded overwhelmingly as the leading and SMS as the second-strongest and next-ranking company in the following areas: pig iron making, steelmaking and continuous casting. SMS was regarded overwhelmingly as the strongest and VAI as the second-strongest and next-ranking company in the following areas: hot rolling, cold rolling, strip processing, pipemaking, aluminium cold rolling and aluminium hot rolling[163]. In the case of copper and other metal plants, SMS was regarded as the market leader and VA Tech was considered one of the more important competitors. In only one area, the rolling of long products, was the third-largest supplier, Danieli, ranked first, while VAI and SMS followed in more or less equal second place).

(c) Insufficient competitive pressure is exerted by other competitors

(320) According to Siemens in its reply to the statement of objections, even if Siemens' minority holding in SMS were to result in a lessening of competition between SMS and VAI, there would continue to be intense competition in the relevant market. In Siemens' opinion, VA Tech and SMS would be faced with a number of other suppliers which from the customer's point of view constitute viable alternatives.

(321) The major suppliers mentioned in this connection by Siemens (MHI/Hitachi, JP Steel Plantech and Aker Kvaerner[164]) are, however, rarely or never active in Europe and so do not represent a viable alternative for European customers. They are accordingly included by the customers and competitors surveyed only to a limited extent, and even then only in a few areas, among the five strongest suppliers in the mechanical metal plant building market as a whole or in one of the possible submarkets. As far as the smaller suppliers mentioned are concerned, contrary to the view taken by Siemens their capacity to bid successfully for major orders is called into question by many market participants (including by the smaller suppliers themselves). This also holds true for the possibility of forming consortia; according to market participants, these enable smaller suppliers to bid successfully only in a few cases, and then often only in conjunction with one of the larger suppliers.[165]

(322) The Commission's market investigation showed, rather, that in the EEA the three full liners VAI, SMS and Danieli were almost exclusively mentioned as being the strongest competitors, accompanied, where appropriate, by smaller specialists such as Paul Wurth in iron and (partly) steelmaking and Andritz in cold rolling and strip processing. Worldwide, VAI, SMS, and Danieli were regarded in the context of the Commission's market investigation as by far the strongest competitors, accompanied by a few Japanese companies whose clear main focus is on orders in Japan and the

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163 In aluminium rolling VAI ranks more or less equally with Achenbach.

164 "We are only active in the Americas market" (Aker Kvaerner, reply to the Commission's request for information on the metallurgy sector, Phase II)

165 See answer to question 45 in the customer information request or question 19 in the competitor information request in Phase I.

Far East such as MHI[166], NSC, JP Steel Plantech and IHI and in the pig iron sector also by Chinese firms. […]* Outside the three market leaders, then, competition is very fragmented and is not sufficiently capable of curbing the market power of the three leading suppliers.[167]

(323) Danieli is usually regarded as the third strongest competitor, but on average well behind SMS and VAI. Danieli's strength lies primarily in flat rolling (section mills), where it is the market leader. Because of Danieli's market position and customer rating, it is unlikely to be able either to prevent competition from declining in the market for mechanical metal plant building as a whole or even to threaten the dominant position that VAI might gain as a result of Siemens/VAI's information advantage. This is also clear from the fact that, as is stressed by customers, the number of serious bids submitted to a customer is of decisive importance when it comes to the price the customer can achieve through negotiation. It was pointed out in the course of the Commission's market investigation that customers need at least three competitive bids in order to negotiate successfully in the field of metal plant building. This is also confirmed by what competitors have to say about the number of rival bidders in the final stages of contract award negotiations, which is often put at three.[168]

(324) Siemens points out, lastly, that some customers and competitors expect within the next two to three years the market entry of viable suppliers from the Far East (Japan or China) in the EEA. This can be put into perspective by pointing out that many (if not most) market participants simply do not expect this to happen.[169] Moreover, the possibility of the market entry of such suppliers in the EEA is played down by the very market participants who in principle expect it to materialise. [*There follow comments on VA Tech's assessment of the market entry of Japanese and Chinese suppliers* [170] [171]]* However, the market investigation did not turn up any further indications that this assumption can be made on the customers' side. Similar qualifications are also to be found in other statements by market participants.[172] It should also be pointed out that, on a world measure, Far Eastern suppliers were ranked by customers far lower than the leading European suppliers. By and large,

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166 According to information supplied by VA Tech [reply to the request for information concerning metallurgy, Phase II (ranking of competitors)], which was confirmed in the course of the market investigation, MHI (the Japanese company mentioned most often by customers and competitors as being a relevant competitor) is active mainly in the possible submarkets of the mechanical building of hot and cold rolling plants and for belt installations and can therefore have no restricting effect on Siemens' market power in the entire possible market for mechanical plant building (and in particular in the submarkets for steelmaking plant and continuous casting plant).

167 See also VAI's opinion, referred to in paragraph (227).

168 To these must be added any further competitors who have already withdrawn. Particular mention should be made here of the multi-stage nature of the tender process, whereby there is some openness about the identity and the number of other tenderers.

169 These include the […]* competitor […]* most often mentioned by customers and competitors.

170 Reply to the Commission's request for information on the metallurgy sector, Phase II.

171 Reply to the Commission's request for information on the metallurgy sector, Phase II.

172 One Japanese supplier, for example, thus restricts the market entry possibilities of certain Japanese companies to specific process stage markets. The striking thing here is that the continuous casting market is not mentioned and the steelmaking market is mentioned only with reference to a single supplier. As regards Chinese suppliers, the market entry possibilities are restricted to non-ferrous metal plants. Another market participant understood the question in such a way that it also considered "VAI China", "Siemens China" and "ABB China" to be Asian suppliers.

therefore, these suppliers cannot be expected in the short term to be able effectively to curb the market power of the leading European suppliers, especially as far as customers in the EEA are concerned.

(d) Buyer power

(325) Siemens took the view that, even on the assumption of competition restricted essentially to the three European full-liners and even in the event of a reduction in the number of equal-ranking suppliers competing head-on from three to two, there are no grounds for concern under merger control law, as in Europe the demand side is highly concentrated. Against this it can be objected that, as indicated in the statement of objections, although a concentration process is taking place in the metallurgical and rolling industries, the degree of concentration worldwide and also in Europe is still much lower than that, say, in the aluminium industry. The Commission's market investigation also showed that suppliers' customer structure is such that a large mechanical metal plant builder has a large number of customers accounting for the bulk of the firm's orders and is not therefore highly dependent on individual customers. Siemens' assertion that customers themselves create new suppliers or are able to turn individual smaller suppliers into general suppliers is unsubstantiated. Nor is such an assumption borne out by the findings of the market investigation.

(e) Substantial weakening of the competitive pressure exerted on Siemens/VAI by SMS

(326) The merger would substantially weaken the competitive pressure currently exerted on VAI by SMS. It would give Siemens control of VA Tech in addition to its existing 28% holding in SMS. In view of the special circumstances of the case, it cannot be assumed with sufficient certainty that the 28% holding in SMS would, solely by reason of the financial participation in SMS's business success that this would normally entail, induce Siemens/VA Tech to compete less strongly with SMS (i). [*There follow comments on the corporate and organisational relationship between Siemens and SMS as regards the exchange of competitively sensitive information and its effect on bidding behaviour*]*

(i) Insufficient certainty that the prospect of financial participation in SMS's business success would give Siemens less of an incentive to compete with SMS

(327) The Siemens group's 28% holding in SMS might in principle from a financial point of view give Siemens/VA Tech less of an incentive to bid aggressively in those tender procedures in which SMS has a realistic prospect of winning the order. The (partial) internalising of competition between VA Tech and SMS would prompt Siemens/VA Tech (assuming maximisation of profits) to offer higher prices on average or grant lower discounts than are normal in the negotiating process, if SMS is a competitor with a good chance of success. For in the event of the contract being awarded to SMS Siemens would also participate financially through its 28% holding in this business success of SMS. […]* [173]

(328) In June 2004 Siemens, however, exercised with effect from 31 December 2004 a put option existing under the shareholder agreement to sell its 28% SMS holding to the

[173] […]*

majority shareholder (SMS GmbH). The method of financial valuation of Siemens' 28% holding and hence the applicable purchase price is the subject of potentially lengthy litigation between Siemens and SMS GmbH.[174] Until the litigation has been settled and the sale is completed, Siemens retains ownership of the shares. The Commission's investigation showed that, according to concurring submissions by both parties in the action for determining the purchase price, the outcome will depend on the value of the share package as at 31 December 2004.[175] Siemens can therefore no longer proceed on the assumption that it will share in any future business success of SMS through a participation in the company's capital and possible future growth of its asset value. Although a financial participation through dividend payments does not appear to be ruled out, it is hard to predict especially in view of the pending litigation with the majority shareholder whether, and if so to what extent, such dividend payments will take place. Under the circumstances it cannot be assumed that Siemens would gear its competitive behaviour to any appreciable extent to a - for Siemens – uncertain participation in possible dividend payments. A competition-lessening effect from a financial point of view of Siemens' participation in SMS is therefore either non-existent or at most so slight that in itself it could not result in a significant impediment to effective competition. [176]

(ii) Strengthening of the competitive position of Siemens/VA Tech through access to strategic knowledge about SMS's business policy

(329) [*There follow comments on the corporate and organisational relationship between Siemens and SMS as regards the exchange of competitively sensitive information*]*

(330) [*There follow comments on the corporate and organisational relationship between Siemens and SMS as regards the exchange of competitively sensitive information*]*[177]

(331) [*There follow comments on the composition, tasks and advisory role of SMS's corporate bodies*]*[178] [179] [180] [181] [182] [183] [184] [185] [186]

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174 […]*.

175 See, for example, page 8 of the complaint presented by SMS GmbH on 22 December 2004 in the above-mentioned action: "According to the shareholder agreement, the valuation is to be carried out at year's end. As the year-end data were naturally not yet available in August and the investment banks did not consider the forecasts available at the time to be sufficiently reliable, the valuation was made on the basis of the interim statement of account of 30 June 2004. The parties are largely in agreement on this and on the individual figures." See also p. 34 of the complaint, where SMS GmbH states that the valuation of SMS Demag "will take place after 31.12.2004. […]*.

176 […]*

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184 […]*

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(332) The flow of competition-related information is not stifled by actionable duties of confidentiality under German law (Article 116 of the Companies Law). While there is such a duty on the part of supervisory board members, [*There follow comments on the duties of confidentiality of the members of SMS's corporate bodies*]*

(333) [*There follow comments on possible effects of the minority holding on bidding behaviour*]*[187] Given Siemens' indefinitely continuing 28% share in SMS, the merger would thus substantially weaken competition between Siemens/VAI and SMS.

(f) Conclusion on the possible overall market for mechanical metal plant building in the area of iron and steel and on the overall market for mechanical metal plant building including ferrous and non-ferrous metals

(334) It is clear that, even if an overall market for mechanical metal plant building (either only in the iron and steel sector or also including non-ferrous metals) is taken into account, VAI, like SMS, already has pre-merger considerable market strength and that the two market leaders VAI and SMS are particularly close competitors.

(335) Post-merger, the competitive pressure that SMS has so far exerted on VAI would be largely lost as Siemens' access to strategic knowledge about SMS would enable Siemens/VAI to anticipate SMS's competitive behaviour and react accordingly. As outlined, there is also insufficiently strong competitive pressure from other companies to effectively restrict Siemens/VAI's competitive room for manoeuvre. Whether the information advantage over its strongest competitor SMS and its lead over Danieli in terms of market power would give Siemens/VAI a dominant position may be left open. At all events the merger would have a serious harmful impact on competition as a result of uncoordinated behaviour by firms. For these reasons there would be a significant impediment to effective competition in the overall market for mechanical metal plant building.

(3) Submarkets of mechanical metal plant building: creation of a dominant position

(336) The conclusion set out in paragraph (335) holds true even more forcefully for the possible process stage submarkets in mechanical plant building for steelmaking and continuous casting, to which the above considerations concerning market conditions, buyer power and the impact of Siemens' holding and rights in SMS also apply.[188] In the other possible submarkets in mechanical metal plant building, however, it is impossible to state with sufficient certainty that the merger would constitute a significant impediment to effective competition.

(337) In the possible *market for mechanical plant building for steelmaking* VAI was the firm rated highest overall by competitors and customers in the Commission's market investigation. In second place, just behind, was SMS. The assessment of its own market leadership is shared by VAI in public pronouncements.[189] VAI and SMS

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[187] […]*

[188] See considerations in paragraphs (306)-(311), (325) and (326)-(333).

[189] See VAI's 2004 annual report in VA Tech 2004 Business Report (http://www.vatech.at/truman/up-media/2933_VAI_AR_2004_E.pdf). All statements refer to 2004: "[VAI] was able to further develop its world leadership position in the Steelmaking […] technologies, especially in stainless steel technology"; "In electric steelmaking VAI Fuchs was able to attain worldwide

have high EEA and world market shares in a concentrated market. VAI and SMS each have estimated world market shares of between around 30–40%; their EEA market shares are very probably even higher. These high market shares suggest that the market is already highly concentrated, which makes a significant negative impact on customers more likely. This is especially true given the close competition between the two strongest players, which would diminish as a result of the merger in favour of the leading firm. VAI and SMS are the closest competitors. Danieli lies well behind in third place and is not in such close competition. The remaining competition is fragmented. Smaller suppliers cannot compete with the big players in major projects or else they rely on cooperation with the big suppliers or specialise in specific market niches.[190]

(338) In the possible *market for mechanical plant building for continuous casting* VAI is clearly rated by customers and competitors alike as the market leader both in the EEA and worldwide. VAI very probably has market shares of over [40-50]*% in the EEA and worldwide.[191] SMS ranks second and is VAI's closest competitor. Danieli is well behind in third place, its competitive strength lying elsewhere (the continuous casting of long products). In the areas of slab casting, thin slab casting and the new process of thin strip casting, VAI and SMS are particularly close competitors. Competition is fragmented and is not sufficiently capable of curbing VAI's market power.

(339) For these reasons Siemens would gain a dominant position in the possible markets for mechanical plant building for steel production and mechanical plant building for continuous casting, resulting in a significant impediment to effective competition. At all events the merger would have, in these possible markets also, a serious harmful impact on competition as a result of uncoordinated behaviour by firms.

(4) Examination of possible non-horizontal effects

(340) The notified merger would result in the integration of suppliers of, on the one hand, electrical (Siemens, VAI) and, on the other hand, mechanical (VAI) plant. It must therefore be examined whether this would have any anticompetitive effects for mechanical (or electrical[192]) metal plant building.

(341) This question must be answered, at this point first of all with respect to mechanical metal plant building, in the negative. Even if VAI has until now had to buy in certain electrical metal plant building services (e.g. in the area of traction solutions or of level 0 electricity supply),[193] it cannot be concluded from this that the future probable intra-group supplying of VAI by Siemens would lead to an appreciable

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market leadership". NB: here, electric steelmaking refers, not to electrical metal plant building, but to a subsector of mechanical metal plant building in the steelmaking process stage.

190 See also paragraphs (320)-(324) above. It is also worth noting that in steelmaking Paul Wurth was ranked as one of the five strongest firms by far fewer market participants than in pig iron making.

191 See also paragraphs (320)-(324) above. On VAI's views regarding its market position in slab casting, see above, footnote 158. In VAI's 2004 annual report this is confirmed and even reinforced. " [F]urther extension of our market leadership for new slabcasters [and] caster modernisations" (See http://www.vatech.at/truman/up-media/2933_VAI_AR_2004_E.pdf)

192 See paragraphs (397)-(400) below.

193 To some extent, however, supply possibilities already existed within the VA Tech group through Elin EBG.

strengthening of Siemens/VAI in the mechanical metal plant building sector. First, it is entirely possible that customers might consider being tied to Siemens for the supply of, say, drives to be a disadvantage and hence prefer suppliers (such as SMS or Danieli) who are independent in this respect.[194] Secondly, there would continue to be a large number of separate tender procedures (and contract awards) for electrical and mechanical plant building on which this possibly strengthened link between electrical and mechanical plant building would have no impact and in which a mechanical plant builder would be entirely competitive even without any link-up with an electrical plant builder. Thirdly, other, originally primary mechanical suppliers (such as, for example, Danieli, MHI, Achenbach and Andritz) would remain free to forge closer ties with traditionally electrical suppliers. This would be all the more easy as, when performing simultaneous contracts for the mechanical and the electrical parts of a plant (as is typically the case with new plants), the mechanical supplier has traditionally assumed a certain leadership or general contractor role in relation to the electrical metal plant supplier.

(5) Summing-up on mechanical metal plant building

(342) The notified merger would accordingly result in a significant impediment to effective competition due to anticompetitive effects stemming from uncoordinated behaviour by firms and possibly also from the establishment of a dominant position on the part of Siemens/VAI, both in the EEA and worldwide, in the market for mechanical metal plant building (whether limited to iron/steel or extended also to non-ferrous metals) and its possible submarkets for steelmaking plants and continuous casting plants.[195]

(b) Electrical metal plant building

(1) Market for electrical metal plant building (level 0-2, iron/steel), possible process area and process stage submarkets

(i) Market structure and market shares

- Market position of the parties and competitors

(343) According to Siemens' view as expressed in the merger notification (Form CO), Siemens' main competitors in the market for *electrical metal plant building* are ABB, Alstom and TMEIC-GE. This view was confirmed by the Commission's market investigation, where those firms were mentioned as being important competitors, although TMEIC-GE is active mainly outside Europe. Other important competitors are the former mechanical plant building specialists VAI, SMS and Danieli. […]*[196]

(344) […]*[197] […]*[198] […]*[199]

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[194] VAI's independence or openness vis-à-vis electrical subcontractors used to be regarded as one of its competitive strengths.

[195] On the commitments submitted by Siemens to remove these effects and their assessment by the Commission, see paragraphs (489) and (491) and paragraphs (493)-(496).

[196] Reply to the request for information of 29 March 2005, Annex 1.b, sheet 11.

[197] Siemens' reply to the request for information of 7 April 2005, Annex 4 […]*.

[198] Reply to the request for information of 29 March 2005, Annex 1.a, sheet 37.

(345) […]*[200]

(346) The Commission's market investigation has shown that Siemens is seen by many market participants (customers and competitors) as the most important and best-known supplier of electrical metal plant building in the iron/steel sector in the EEA and worldwide. This is true for the possible overall market and in most of the submarkets, except in the possible long-rolling submarket, where Danieli is seen as the leader. In all these areas VAI is regarded as a strong competitor, usually in second place in the market; and in the field of continuous casting it is even regarded as roughly on a par with Siemens.[201] It should be borne in mind, however, that the customers surveyed were predominantly (European) customers of VAI and Siemens who might tend to rate the importance of VAI and Siemens more highly.

(347) It is significant in this connection that, besides the parties, other competitors were mentioned by competitors and customers as being strong suppliers. In the liquid phase process area, these are above all ABB and Alstom; in the ironmaking process stage Corus and Posco as well,[202] and in the steelmaking process stage SMS and Danieli as well. In the hot phase process area, ABB, SMS, Alstom, Danieli, and in the hot rolling process stage Toshiba (or TMEIC-GE) (which, however, has so far won only a few orders in Europe) as well, were mentioned.[203] These firms, together with Sundwig-Andritz, were also regarded as strong suppliers in the cold-rolling process area. A few other competitors also received a mention (e.g. Ingelectric and ASI Robicon).[204]

(348) In the light of these data from customers and competitors it must therefore be concluded that, in the electrical metal plant building market (iron/steel, level 0-2) and in its possible submarkets categorised by process area and process stage, the present merger is a merger between important, possibly even leading, suppliers, but that, both in the possible market for electrical metal plant building (level 0-2, iron/steel) and in all submarkets, a substantial number of at least four other credible suppliers, including SMS, are active.

- *Market shares in the overall market and in process area or process stage submarkets*

(349) Market shares are rather difficult to quantify objectively in this very varied and differentiated product or service area. The Commission has several estimates from Siemens, some produced for the purpose of the proceedings and others produced well before they started. The Commission also has estimates drawn up by VA Tech before the proceedings began as well as estimates drawn up during the proceedings at the Commission's request. Finally, estimates drawn up by SMS for the purposes of the proceedings were also submitted to the Commission. The estimates give quite a wide range of figures for market shares. Siemens' estimates (apart from a few process stage estimates in internal documents) generally assume combined market shares of less than [15-20]*%, whereas VAI's estimates are considerably higher, somewhere in the region of 40–50%. The highest figures, albeit not for the overall

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199 Reply to the request for information of 29 March 2005, Annex 1.b, sheet 13.

200 Reply to the request for information of 29 March 2005, Annex 1.c, sheet 10.

201 Results of the market investigation, assessment of the questionnaires on phase II.

202 Other competitors were mentioned, including Yokogawa, Honeywell and Metso Automation.

203 Other competitors were mentioned, including Reliance, Hitachi, Gefeba and ASI Robicon.

204 Results of the market investigation, assessment of the questionnaires on phase II.

market but only for 3 possible process stage markets (continuous casting, hot rolling and cold rolling), appear in SMS's (60 – approx. 70%).

(350) Although in the view of the Commission (and of some of the competitors mentioned)[205] none of these estimates can be regarded as very reliable, they are examined briefly below. This is followed by a calculation of actual market shares produced by the Commission.

(ii) Market share estimates from Siemens, VAI and SMS

(351) In Siemens' view the parties' combined market share in the overall EEA market for *electrical metal plant building* in 2003 came to [5-10]*% (Siemens [2-5]*%, VA Tech [2-5]*%).[206]

(352) During the Commission's in-depth examination Siemens also estimated the combined market shares by process stage to be low. In the iron/steel sector VAI's worldwide market shares were put at [0-5]*% (2000-2004), while Siemens estimated its own market shares at predominantly less than [5-10]*%, with the exception, however, of hot rolling ([10-25]*%) and cold rolling ([5-15]*%). In this estimate, EEA market shares for VAI were the same or slightly higher and for Siemens even lower.[207] With regard to the liquid phase, Siemens later submitted other estimates which gave Siemens' average market share for 2002-2004 in the EEA as [5-10]*% and VAI's as [10-15]*% or [10-15]*%.[208] Siemens also submitted a market share calculation for the EEA carried out by an economic consulting firm, which reaches the conclusion in a scenario described as conservative that the parties' combined market share in an overall electrical market in the EEA comes to no more than [10-15]*%. The study suffers from certain shortcomings, however, and cannot therefore be regarded as providing a sufficiently reliable market share estimate.[209]

(353) […]*[210] […]*[211]

(354) In its business plan for 2002-04, VAI estimated its market position in electrical metal plant building overall at [10-15]*% and that of Siemens, which VAI considered to be the market leader, at [20-30]*%. In western Europe, Siemens' market share came according to these data to [30-40]*% and that of VAI to [15-20]*%. The relevant world market volume came in VAI's opinion to EUR […]* million (i.e. much less than Siemens assumes).[212] VAI saw itself in this estimate as more or less on a par with ABB. Other firms lagged well behind: Alstom: [10-15]*%, SMS Demag: [2-5]*%, Danieli: [2-5]*%.[213] A later market share estimate for the years 2001-03 submitted by VAI puts

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205 See below VAI's qualification regarding the validity of its own market estimates.

206 GE and TMEIC have set up a joint venture in the electrical metal plant building sector and are therefore no longer to be regarded as independent competitors.

207 See Siemens' reply to the relevant Commission request for information of 2.3.2005, Annex 3.

208 […]*.

209 [*There follows a discussion of the aspects of the study which the Commission regards as "shortcomings"…*]*.

210 Reply to the request for information of 29 March 2005, Annex 1.a, sheet 13.

211 Reply to the request for information of 29 March 2005, Annex 1.b (as at 12/2003), sheets 6 and 7. […]* (reply to the request for information of 7 April 2005, Jour Fixe 29.1.2001, Annex)

212 […]*.

213 […]*.

Siemens' worldwide market share at [20-30]*% and VAI's at [15-20]*%. The market shares of competitors (SMS Demag, Alstom, ABB, Danieli) ranged between [5-10]*% and [5-10]*%. The corresponding market shares for Europe in this estimate were: Siemens: [20-30]*%, VAI: [10-20]*%, Alstom, SMS, ABB: [5-10]*%.[214] A further market share estimate by VA Tech relating to iron- and steelmaking, including continuous casting, for the period 2001-03 for Europe gave VAI: [20-30]*%; Siemens: [20-30]*%; Alstom: [5-10]*%; SMS Demag: [10-15]*%; ABB: [5-10]*%.[215] VA Tech itself reduced the significance of its market share estimates, however, when it stressed that they represented only the subjective, limited view of a firm active mainly in the mechanical plant building sector whose market view did not encompass the whole market. The Commission shares this opinion.

(355) SMS provided the following estimate of EEA market shares for *electrical metal plant building as a whole*: Siemens: [30-40]*%, VAI: [10-15]*%, SMS: [5-10]*%.[216] SMS estimated the combined market shares of Siemens and VAI in the process stage submarkets studied somewhat higher still. When asked to substantiate these estimates, SMS submitted an assessment of the largest worldwide projects in the market during the last 4 years worth more than EUR 5 million on the assumption that market shares in the actual market behaved in the same way as in this, the largest project segment. This gave a combined Siemens/VA Tech market share of [60-70]*% for continuous casting ([5-10]*% + [50-70]*%), [70-80]*% ([60-70]*% + [5-10]*%) for hot rolling and [60-80]*% ([50-60]*% + [10-15]*%) for cold rolling.[217] For SMS itself, it resulted in market shares of [20-30]*% (continuous casting) and [5-10]*% each for hot rolling and cold rolling. For other process stages, SMS did not submit any substantiated estimate.[218] Siemens criticised SMS's estimates as being too high and argued that, even in SMS's view, the limitation to projects worth more than 5 million resulted in only 40-60% of the market being covered, which Siemens moreover doubted as the number of projects taken into account by SMS annually was far too small. This was due to the fact that, as a firm active mainly in the mechanical plant building sector, SMS necessarily had a limited view of the electrical metal plant building market. SMS had thus failed to include a substantial number of major projects in the basis for its assessment.[219] Siemens' criticism is justified above all with regard to the leaving out of account of projects in SMS's project lists. Inasmuch as SMS's market share in electrical metal plant building is far smaller than in mechanical metal plant building, this omission might, as Siemens maintains, quite rightly be put down to SMS's limited market view as a firm primarily active in the past in mechanical metal plant building. SMS's estimate is therefore to be regarded as no more than the subjective market view of an important market player.

(iii) The Commission's market share calculation

(356) In view of the above-mentioned weaknesses in all of the above market share estimates and calculations and in view of their considerable divergences, the Commission carried

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214 Reply to the request for information of 14.1.2005, question 18.

215 Reply to the Commission's request for information of 18.1.2005, question 16.

216 SMS, non-confidential version of 9.2.2005.

217 SMS, reply to the request for information of 21.2.2005, made non-confidential on 21.4.2005.

218 SMS's overall market estimate can therefore also be regarded as unsubstantiated.

219 Siemens thus points out that the project list submitted by Siemens both for hot and for cold rolling contains more than 20 projects with an order value that is greater than the smallest project in the SMS list.

out an analysis of the strength of the major competitors in the main part of the markets referred to above, i.e. for orders worth more than EUR [0.5-3]* million, for the years 2002-2004. It asked competitors about all the orders they had won during the relevant period and aggregated the figures.[220] The results of the inquiry therefore reflect only the relative size of the firms questioned, but, due regard being had to this fact, they constitute the best information available in the present case.

(357) At a late stage in the proceedings, in connection with the liquid phase Siemens provided information on other competitors which had won specific orders in the EEA during the period in question and which had not been included in the Commission's original calculation. The Commission checked the information and took it into account where it was confirmed by the customers and/or competitors concerned.

(358) In the Commission's view, this calculation represents a meaningful approximation of actual market shares. Admittedly, it ignores that area of the market which includes orders worth less than EUR 1 million. However, the importance of that area when it comes to establishing the actual market strength of firms in the overall market is reckoned to be relatively minor inasmuch as firms that are competitive only or chiefly in the area of small orders may be regarded by customers as being not fully competitive. A more important qualification is that account has to be taken of the possibility, not to say the probability, that suppliers not represented in the table may also have won orders in the area and period in question.[221] For this reason, the market shares indicated must be regarded as the upper limit and the actual market shares are very probably somewhat lower.[222]

Order value > 1 million '02-'04	*Total worldwide*	*Liquid phase worldwide*	*Liquid phase EEA*	*Hot phase worldwide*	*Cold phase worldwide*
Siemens	**<25%**	**<20%**	**<15%**	**<25%**	**<30%**
VAI	**<20%**	**<30%**	**<30%**	**<20%**	**<15%**
Parties	35-40%	40-45%	35-40%	35-40%	35-40%
SMS	*<10%*	*<10%*	<10%	*<10%*	<10%
Danieli	<15%	<20%	<5%	<15%	<10%
ABB	<20%	<10%	<5%	<20%	<20%
Alstom	<15%	<5%	<5%	<10%	<20%

[220] In two cases, instead of the sum of the projects, annual turnover figures for projects worth more than EUR 1 million were used.

[221] Suppliers are involved who either were not mentioned in time to the Commission by Siemens as being competitors and so could not be contacted or who were unable to provide the required information in good time.

[222] It must also be taken into account here that in the case of one supplier, Danieli, it was not possible to clearly allocate certain order volumes to individual process stages or process areas, which in Danieli's case resulted in a certain amount of double counting and hence higher market shares. It is much more likely, however, that the volume increase due to the inclusion of disregarded competitors far exceeds any volume decrease due to a corresponding correction of Danieli's order volumes.

Ingelectric	<5%	<5%	<5%	<5%	<5%
TMEIC-GE	<15%	<5%	0%	<15%	<15%
Other EEA competitors for liquid phase[223]	<5%	<20%	<50%	--	--

Order value > 1 million '02-'04, worldwide	***Continuous casting***	*Hot rolling flat*	*Cold rolling flat*	*Strip plant*
Siemens	<10%	<30%	<30%	<25%
VAI	<40%	<15%	<15%	<20%
Parties	40-45%	35-40%	35-40%	35-40%
SMS	*<20%*	*<5%*	*<10%*	*<10%*
Danieli	<35%	<10%	<10%	<15%
ABB	<5%	<25%	<20%	<15%
Alstom	<5%	<15%	<20%	<25%
Ingelectric	<5%	0%	0%	<10%
TMEIC-GE	<5%	<20%	<15%	<10%

(359) These tables show that, as a result of the merger, very probably (given the presumably larger market volume in real terms) no market shares will be more than [30-40]*%. This also applies to the possible worldwide market for the liquid phase, since it is unlikely that, worldwide, there would be higher market shares for Siemens and VAI than in the EEA and Siemens' view that also other competitors not shown in the tables are active worldwide is to this extent credible.[224] In the possible worldwide market for continuous casting too, this should be assumed for the same reasons. In every process area and every process stage there will be at least four efficient suppliers left in the market, which may be expected to exert sufficiently strong competitive pressure on the merged undertaking. Basically, these competitors also include SMS. Not represented in the tables is the special area of long rolling, where, however, on account of Danieli's clear market leadership there are no concerns either.

[223] These are those competitors with respect to whom Siemens on 29.5.2005 mentioned specific projects worth more than EUR 1 million in the liquid phase which the Commission was able to verify.

[224] The somewhat higher market share in the possible worldwide market is explained by the fact that as regards other competitors for the liquid phase Siemens has concentrated on EEA projects because they are easier to check for the Commission and because of their greater relevance for competition purposes.

(360) It should be added that, with the exception of TMEIC-GE, the competitors represented in the table are European competitors, for which as suppliers of European customers there can be no special entry thresholds. In fact, the EEA market shares not shown in the tables also change in roughly the same order of magnitude as the world market shares shown.

(361) Even excluding the internal Japanese sales of TMEIC-GE, given the assumption of a world market without Japan,[225] results in market shares that either do not increase the worldwide joint market share spreads of the parties contained in the above tables, which as mentioned should otherwise be interpreted as upper limits, or only exceed them very slightly by 1-2%. The conclusion that there would very probably be no market shares of more than [30-40]*% therefore applies as well to the assumption of a geographically reduced "accessible" world market. In each of the possible markets mentioned, TMEIC-GE, even on this premise, remains a substantial competitor, so that, from this standpoint too, there is no fundamental change in the competition analysis.

- *Tendering analysis for the overall market (iron and steel, levels 0-2) and the process area and process stage submarkets*

(362) The markets in question are of course tendering markets, where market shares only have an indicative function. The decisive factor is the strength of the competitive pressure which undertakings exert on each other as bidders, although long-term market shares act as an important indicator of that strength. As already emphasised in the analysis of mechanical metal plant building, after the bid submission and opening phases there is usually an intensive negotiating phase where it is possible for bidders to grant price discounts. It is also possible to adapt parts of the order qualitatively to customers' wishes or, for customers, to change the scope of the order.

(363) The Commission has analysed the tendering data of some competitors in these markets. The analysis of Siemens' tendering data revealed that, with regard to the overall market (iron and steel, levels 0-2) for electrical metal plant building, worldwide 3 other undertakings[226] and EEA-wide 2 other suppliers in electrical metal plant building competed with Siemens more frequently than VAI. There was a similar result in terms of its trend with hot rolling, cold rolling and strip processing lines. Analysis of VAI's tendering data confirmed, both for the overall market and for the process areas and stages mentioned, that Siemens is not VAI's closest competitor in them.[227]

(364) In the case of continuous casting plants,[228] VAI, according to the analysis of Siemens' tendering data, was worldwide just behind another firm, and EEA-wide was in first place. However, analysis of VAI's tendering data showed that Siemens'

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225 The scenario which excludes an inaccessible part of the Chinese market has, however, no effect on the above calculation, since this part would be equally inaccessible for all the suppliers shown in the table.

226 This finding applies both to a world market which includes Japan and to one which excludes it. The inclusion/exclusion of a part of Chinese demand (which continues to be reserved for Chinese suppliers) has no effect on this finding.

227 This would probably be because the area of level 0 automation (electrics and drives) in the cold and hot rolling phase (and proportionately in the overall market as well) is the traditonal domain of electrical engineering firms such as Siemens, ABB, and Alstom, while the "mechanical engineers" in this area have advanced only slowly, as they do not manufacture electrics and drives themselves.

228 The number of such bids was admittedly small.

significance as a competitor of VAI in continuous casting is relatively small, and that SMS and Danieli are the most important competitors for VAI in this process stage. Since it is clear from the analysis of market shares that VAI is the strongest competitor with the highest market share in continuous casting, greater importance should be attached to its tendering data. From this information it follows, therefore, that in the hot phase and cold phase process area markets too Siemens and VAI are not the closest competitors.

(365) An exact analysis of the tendering data in the case of long-rolling plants is not necessary as Danieli is the leader in this submarket.

(366) In the process area market for iron and steel plants (liquid phase), Siemens competed, according to its own tendering data, in the EEA and worldwide most frequently with VAI, and worldwide equally with ABB. An expert's report commissioned by Siemens shows that the difference between VAI and the second or equally placed firm, ABB, is not statistically significant and therefore both firms can rank as equally close competitors of Siemens. Analysis of VAI's tendering data showed however that, in the iron and steel production area, SMS was the clearest competitor of VAI, and Siemens only one of two other important competitors. Here too it should be noted that greater importance must be attached to the tendering data of VAI in view of that company's probably higher market share.

(367) The tendering data show, therefore, that Siemens and VAI can at best be regarded as close competitors in individual possible submarkets (continuous casting, liquid phase). Even in these few submarkets, however, they are not each other's closest competitors.

- *Effect of the Siemens shareholding on SMS*

(368) In the assessment of Siemens' competitive position in the market under consideration and its possible submarkets, it should also be borne in mind that, through its minority shareholding in SMS, Siemens has access to the strategic knowledge of this competitor. For the same reasons as discussed for the area of mechanical metal plant building (see paragraphs (326)-(333)), the competitive pressure on Siemens exerted by SMS could be weakened therefore.

(369) Unlike in the field of mechanical metal plant building, however, such reduced competitive pressure in the relation between Siemens and SMS would not be created only by the merger but would affect competition even without the merger, because Siemens is already operating in the field of electrical metal plant building.[229] Also, Siemens and VAI are not closest competitors in electrical metal plant building, unlike SMS and VAI in mechanical metal plant building.

(370) In any event, the commitments concerning its shareholding and […]* shareholder's rights in SMS given by Siemens, which are necessary for removing the competition concerns in the field of mechanical metal plant building, provide the solution to Siemens/VA Tech's link to SMS from the competition angle for electrical metal plant building too. In electrical metal plant building too, therefore, it can be ruled out

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[229] Thus it is quite possible that the link hitherto to Siemens has delayed SMS's entry into electrical metal plant building. At any rate, according to the results of the market investigation, SMS is clearly behind VAI in electrical metal plant building and entered the sector significantly later.

that this shareholding and the […]* information rights associated with it will significantly impede competition as a result of the merger between Siemens and VA Tech. The de facto dissolution of the link between Siemens and SMS has the positive effect, moreover, of intensifying competition between Siemens and SMS.

- *Conclusions*

(371) An overall assessment of the information concerning the competitors, the structure of the market and, in particular, the bidding data, which also took account of Siemens' minority holding in the competitor SMS, reveals that the merger will not create a dominant position in the abovementioned market or markets of electrical metal plant building (level 0-2, iron/steel) or significantly impede effective competition in any other way.

(2) Possible markets for level-1 and level-2 automation

(372) The market investigation confirmed that competitors consider level-1 and level-2 software solutions relevant indicators of market strength.[230]

(373) […]* [VAI] […]* [sees] […]* [itself] in a technological leadership role in such possible automation markets.[231]

(374) However, it is still true to say that enough viable competitors will remain even in these possible markets. SMS followed VAI in developing automation technology for metal plant building, somewhat late but with a clear strategy and rapid growth.[232] The third leading company in mechanical plant building is still Danieli, a company that has also greatly expanded its automation activities and is a major supplier of level-1 and level-2 automation technology. The Commission has information regarding the technological performance of and/or research being conducted by Alstom,[233] ABB and TMEIC-GE.[234] There are also a number of other suppliers also competing with the merger parties, particularly in level-1 markets, where the barriers to entry are lower than in level-2 markets, or which offer niche solutions.

(375) When conducting its market investigation the Commission asked the parties and competitors for their reference figures for various software modules of process models and technical control systems for three process stages (continuous casting, hot rolling and cold rolling). Nine firms replied, namely Toshiba-TMEIC-GE, Andritz, Danieli, SMS, Siemens, VAI, Ingelectric, ABB, and Mino. As solution bundles are used for each process stage and it is in part the customer who decides whether a particular individual solution is needed or not, figures regarding specific solutions are less relevant than those covering a solution bundle for a specific process stage. For this reason, the Commission aggregated the figures to 6-8 single

230 […]*.

231 […]* VAI also sees itself as "the leading supplier of advanced automation solutions for the international iron and steel and aluminium industries" (VAI homepage, brochure) […]*.

232 Turnover in electrics and automation (order entry planning) 2002:35 mn, 2003:60mn; 2004:74 mn; 2005: 93 mn; 2006:100mn. […]*.

233 […]* (Reply to request for information of 29 March 2005, Annex 1.1, sheet 12. […]*.

234 […]*.

modules for each process stage to produce an overall figure for the stage. As no figures were obtained from a number of relevant competitors, at least one of which is certainly a major supplier (Alstom), the percentages must be seen as *absolute upper limits*. *The actual market shares are sure to be lower*.

Level-1 and level-2 software modules; plant equipment, worldwide	Siemens	VAI	Siemens +VAI	Competitor 1	Competitor 2	Competitor 3
Continuous casting	5-10%	35-40%	45-50%	25-30%	15-20%	5-10%
Hot rolling	15-20%	25-30%	45-50%	25-30%	20-25%	5-10%
Cold rolling	30-35%	15-20%	45-50%	15-20%	15-20%	5-10%

(376) The figures in the table tally with the other findings of the market investigation, showing that while after the merger the parties would become the market leaders in the possible level-1 and level-2 automation markets for the process stages in question there would still be a sufficient number of technologically viable competitors in the market.

(377) This also applies to possible markets for automation solutions (levels 1 and 2) in the process stages not covered by the table, and therefore automatically in the overlying process areas, and finally in a possible total market for level-1 and level-2 automation solutions for the iron and steel industry. The market investigation findings show certain similarities between automation solutions for strip processing and cold rolling. This is also true of the competitive conditions, about which no specific concerns were expressed in the market investigation. With regard to automation solutions for iron and steel production, Siemens produced information pointing in the same direction and confirming the existence of a sufficient number of other competitors.[235] The investigation suggested that automation solutions for the special field of long rolling were less useful. Moreover, Danieli is the market leader is this field, which is why there are generally no competition concerns in this specific area.

(378) Comments from customers to the effect that the merger would have the greatest impact on the automation field, and level 2 in particular, but that there would still be a sufficient number of competitors at the same technological level, confirm these findings. No key technologies could be identified that would enable the merger parties to prevent competitors from being successful in the market.

(379) As regards the impact of Siemens' holding in SMS, what was said in relation to electrical metal plant building (levels 0-2; iron/steel) applies (see paragraphs (368)-(370) above).

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[235] […]* statements were corroborated by other market participants.

(380) For these reasons in none of the possible level-1 and level-2 automation markets in iron and steel plant building is a dominant market position created or effective competition restricted appreciably in any other way.

(3) Electrical plant building for aluminium hot and cold rolling

(381) Siemens does not believe that there is a relevant separate market for electrical plant building for aluminium hot and cold rolling, and the product market definition left this question open. The Commission's market investigation showed clearly that, in comparison to steel rolling, these possible markets would be very small (in all likelihood accounting for less than 10% of the turnover of electrical steel rolling mill building). This alone means that the existence of combined markets for rolled steel and aluminium could not significantly influence the completed analysis of rolled steel markets. As will be shown, this follows as there are no competition problems on possible aluminium markets. The same argument applies to any possible total market for electrical plant building that would include aluminium rolling mills.

(382) [*There follow comments on Siemens' internal assessment of the field of aluminium rolling*]*. However, the Commission's market investigation revealed that a number of competitors and customers viewed Siemens as the strongest supplier of electrical plant building for both aluminium hot rolling and aluminium cold rolling.[236]

(383) VAI says that ABB and TMEIC are significant suppliers of aluminium hot rolling plants.[237] It adds that there are also other, smaller suppliers (Alstom, ASI Robicon, IAS).

(384) VAI is of the view that ABB and Alstom are significant suppliers of aluminium cold rolling plants. For new plant, the mechanical suppliers (Achenbach, Fata Hunter, SMS) apparently used their own automation systems. Although a smaller supplier, IAS is becoming more active in the market. In terms of technical control systems for aluminium foil rolling mills VAI sees itself as the market leader but considers that there a number of serious competitors, most notably ABB.

(385) According to VAI, the building of aluminium hot rolling mills is quite a small market.[238] […]*[239] In its public statements VAI sees itself as the world leader in the modernisation and automation of aluminium rolling mills.[240]

(386) The majority of customers do not think that the merger will cause any problems in the area of electrical plant building of aluminium hot and cold rolling mills. While both parties are often named as leading suppliers, a number of other companies have won tenders.

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[236] Results of the market survey, assessment of the phase II questionnaires.

[237] VAT Tech's reply to the Commission's request for information of 29 March 2005 (received on 6 April 2005).

[238] Other statements regarding sales in this field confirmed that in comparison to the steel rolling mills markets electric aluminium rolling mills markets are relatively small.

[239] VAI Tech's reply to the Commission's request for information of 29 March 2005 (received on 6 April 2005).

[240] "VAI is the world leader in the Modernisation and *Automation* of Aluminium Rolling Mills", VAI refers to special control systems; 28 hot rolling plants; 58 cold rolling plants; 72 foil rolling plants in 10 years (homepage, brochures).

(387) Even if there are barriers to entry in the area of aluminium, these are, however, considerably smaller for two groups of suppliers, namely, on the one hand, specialist or non-specialist suppliers of mechanical aluminium plants, such as Fata Hunter, Achenbach, Mino (as smaller suppliers, it could, however, be easier for these companies to tender for smaller plants) and SMS, which is also able to undertake larger projects; and, on the other hand, companies that are already supplying level-1 and level-2 automation to the steel industry (above all for hot and cold rolling).

(388) There are no competition concerns with regard to aluminium cold rolling and foil rolling mills, as there are enough competitors in this market, and plants are often smaller.

(389) In the case of aluminium hot rolling mills the thresholds to entry are higher and are mainly in the area of technological control systems and process models (i.e. possible level-1 and level-2 submarkets). Smaller suppliers seem to have problems overcoming these technological and size-related barriers, although they are named by some potential customs as possible alternatives. However, they can meet the requirements for supplies in the field of aluminium hot rolling with support from the highly concentrated demand side, which most definitely has some buyer power.

(390) The main source of competition to the merger parties are the major electrical suppliers in the steel sector, such as TMEIC, ABB and Alstom. All these suppliers have experience in aluminium. As yet not all necessarily have sophisticated special level-2 process models. In the case of TMEIC it should also be borne in mind that the company has rarely tendered successfully in Europe. Moreover, however, there are a number of companies that have been named as possible market entrants and have been found to be plausible or appear to have already set about entering the market. The companies in question are SMS, Achenbach and IAS. As IAS and Achenbach are relatively small companies, of the three SMS seems to have the best chance. With active support from a major customer SMS is likely to be in a position to enter the market successfully within a relatively short time.

(391) As regards the impact of Siemens' holding in SMS, what was said in relation to electrical metal plant building (levels 0-2; iron/steel) applies (see paragraphs (368)-(370) above).

(392) For these reasons in neither of the aluminium plant building markets affected will the proposed merger create or strengthen a dominant market position or significantly impede effective competition in any other way.

(4) IT solutions for plant logistics/MES/Level 3

(393) In this relatively young and highly dynamic sector the proposed merger does not give rise to any competition concerns. It should be remembered that the sector is relatively small, accounting for no more than [5-10]*% of the total market volume for electrical metal plant building,[241] and that therefore the inclusion or exclusion of this sector cannot make much difference to any assessment of the total market for electrical metal plant building. It follows, however, that there are no competition concerns in a total market for electrical metal plant building only in the light of the

[241] […]*.

fact that there are no competition concerns in the possible segment (or possible separate market) for IT solutions for plant logistics /MES/Level 3.

(394) While both Siemens and VA Tech offer solutions on this possible product market, they are at a relatively early phase of development. When surveyed by the Commission, market participants expressed no concerns whatsoever regarding such a market. There are currently few obstacles to entry into this market and, given the predicted growth of the market, there are clear incentives for competitors to invest. There are enough current and potential competitors, as the merger parties' competitors are also working on such solutions in other markets for electrical metal plant building and moreover the market is also accessible to companies offering general control technology and logistics solutions.

(395) For these reasons the proposed merger will not significantly impede effective competition in a possible market for IT solutions, in particular as a result of the creation or strengthening of a dominant position.

(5) Conclusion regarding a possible total market for electrical metal plant building including all the abovementioned sub-markets

(396) As no competition concerns could be detected in any of the possible sub-markets of an overall market for electrical metal plant building, the same necessarily holds true for a possible overall market, and in such a market the merger would neither create nor strengthen a dominant position or significantly impede effective competition in any other way.

(6) Additional assessment of possible non-horizontal effects

(397) The proposed merger will lead to the integration of supplies of electrical plant building (Siemens, VAI) and mechanical plant building (VAI). An assessment must therefore be made as to whether this will have the effect of restricting competition in the electrical metal plant building sector.

(398) The answer must be negative. Even if VAI has until now acted as a principal for other companies in the electrical metal plant building sector (e.g. in connection with drive solutions or level-0 electricity generation), it does not follow that VAI's subcontractors, as independent suppliers, will leave the market for electrical plant building because subcontracts are switched to Siemens. There will continue to be a large number of separate calls for and awards of tenders for electrical and mechanical plant building and orders concerning only the electrics of a plant. An electrical plant builder with no links with any mechanical plant builder is fully competitive in this field. Secondly, the loosening and certain ending of the ties between Siemens and SMS increase the likelihood that SMS will try to obtain supplies from electrical subcontractors other than Siemens. Thirdly, other primarily mechanical suppliers (such as Danieli, MHI, Achenbach and Andritz) will continue to be potential customers in the market. Fourthly, other competitors could attempt to become general contractors for both mechanical and electrical orders, as Siemens has done with initial success.

(399) The merger cannot create a market lock-in or any other foreclosure effects in electrical metal plant building or between electrical metal plant building and markets upstream or downstream. Firstly, it should be pointed out that a clear majority of

customers for electrical industrial plant building stressed that they do not automatically award modernisation or extension contracts to the original suppliers of the electrics. This shows that manufacturers cannot currently tie the sale of one product to the sale of another (extension or modernisation) product to any great extent. As the merger does not create a dominant position in a possible electrical metal plant building market or any upstream or downstream market, the merger cannot have these consequences. Should suppliers, such as the parties, actually pursue such a strategy and should the situation be to the disadvantage of customers, they could react by covering their requirements from another supplier.[242]

(400) For these reasons even hypothetical non-horizontal effects of the proposed merger will neither create nor strengthen a dominant market position in any market for electrical metal plant building, or significantly impede effective competition in any other way.

(c) Maintenance and service of metal plants

(401) In this market too Siemens' and VA Tech's activities overlap. The Commission's market investigation, however, found no evidence that there would be competition concerns in the market for the maintenance and service of metal plants. The barriers to entry in this market are significantly lower than in the electrical and mechanical plant building markets. There are enough local competitors for the maintenance and servicing of metal plants. In some cases, customers of the metal plant-building sector are also able to carry out this work themselves.

(402) For these reasons the proposed merger will neither create nor strengthen a dominant market position in this market, or significantly impede effective competition in any other way.

(d) Electrical industrial plant building in other sectors

(403) In other (non-metal) areas of electrical plant building VA Tech is not active (mainly) through its subsidiary VAI, as is the case with metal plant building, but solely through its subsidiary, Elin EBG. Electrical plants are produced above all for the vehicle industry, for oil/gas, chemicals, pharmaceuticals, paper, cement, quarrying and food, beverages and tobacco.

(404) Siemens operates mainly in the oil/gas, chemicals, pharmaceuticals, paper, cement, quarrying and food, beverages and tobacco sectors.

(405) There are no competition concerns regarding the planned merger in connection with any possible product market definition (i.e. in relation to a market covering several sectors or taking each sector as a separate market).

(406) According to Siemens, geographically speaking, the only significant overlaps with combined shares that could technically denote an affected market are in Austria, where Elin EBG focuses much of its activities.

(407) Customers in Austria consulted by the Commission raised no concerns regarding competition. The general view was that the disappearance of VA Tech as a supplier

[242] This would make the strategy economically questionable from the supplier's point of view.

would reduce the number of competitors but there would still be enough competitors in the market or industrial companies that were potential customers could enable other suppliers to enter the Austrian market. [243]

(408) If the geographical confines of the markets are extended beyond Austria (for specialist sectors, for example) the merger will have only a slight impact. No competition concerns were raised in this connection that are relevant to this assessment.

(409) For these reasons the merger will not significantly impede effective competition in any market for (other) industrial plant construction, in particular as a result of the creation or strengthening of a dominant position.

(e) Summary regarding the electrical metal plant building markets and the market(s) for electrical industrial plants in non-metal sectors

(410) For these reasons the proposed merger will neither create nor strengthen a dominant market position in any of the markets for electrical plant building or the market(s) for electrical industrial plants in non-metal sectors or significantly impede effective competition in any other way.

F. LOW-VOLTAGE SWITCHBOARDS

1. Relevant product markets

(411) Siemens and VA Tech both produce low-voltage (LV) switchboards. While Siemens manufactures the components for the switchboards itself, VA Tech purchases them from other companies, including Siemens, and incorporates them in its LV switchboards. LV switchboards are used to feed in and distribute energy to connected electricity users and to protect and support them. The main components of LV switchboards are circuit breakers and switch disconnectors, programmable logic controllers and contactors. In the Schneider/Legrand Decision the product market for circuit breakers and switch disconnectors was subdivided into the three categories of ACB, MCB and MCCB LV circuit breakers.

(412) Market participants held the view that there were three separate product markets for LV switchboards, depending on which of these circuit breakers and switch disconnectors were incorporated in the switchboard. This were held to the main LV switchboard, which contains an air circuit breaker (ACB), the intermediary distribution panel, which contains a moulded case circuit breaker (MCCB), and the final distribution panel, which contains a miniature circuit breaker (MCB). The question of whether these three LV switchboards constitute separate markets can however be left open, as the competition assessment is unaffected by any assumption of separate product markets.

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[243] Particular reference should be made to the discussion of the technical general contractor for building engineering (non-industrial plant engineering and construction) in this Decision. The competitive conditions in the industrial plant building sector in Austria are similar to those set out there, with the added factor that ABB is another competitor in the industrial plant building and engineering sector in Austria.

(413) One competitor took the view that, in addition to the three submarkets based on the circuit breakers, there is also a separate market for busways. Like heavy-duty cables, busways transport and distribute electricity to the final consumer in buildings and factories from medium voltage switchgear via LV switchgear. In a decision in 2004 the Federal Cartel Office held that busways were part of the single market for busways and heavy-duty cabling (cables including cable tray systems).[244] There is no need for any decision here as to whether this is the case here, as the competition assessment remains unchanged even if it is assumed that there is a separate market for busways.

(414) Other components built into LV-switchboards are programmable controllers („PLC") and load feeders.

(i) PLC are used to control the other components of a switchboard. PLC are electronic control devices, where the control sequences are determined by a programming language. Siemens is of the opinion that PLC should not be subdivided according to end-use. The only sector for which the market investigation of the Commission has pointed towards a possible sector specific application is the use of PLC in automation solutions for metallurgical plants. However, for the purpose of this decision it is not necessary to decide whether these applications, also referred to as application platforms, constitute a separate product market.

(ii) load feeders are used to protect and switch electrical consumers (e.g. motors) and consist of protection components (protection switches for motors, overload relays) and a switching device. It is not necessary to further segment the market, since all suppliers normally offer the entire range and customers typically order a complete package from suppliers.

2. Geographic markets

(415) According to Siemens the market for LV switchboards has traditionally been determined by national factors. Today, both for individual components and LV switchboards competition is EEA-wide. Siemens points out that at component level there are no technical or legal trade barriers, and that transport costs are low. In relation to components for electrical installation, however, Siemens notes that in its decision in Schneider/Legrand the Commission concluded that such components were traded at national level and the market(s) for them were to be defined in national terms.[245]

(416) LV switchboards are often produced to customer specifications. For this reason many customers emphasised the importance of national competition factors, especially the importance of and need for proximity to the customer as a prerequisite for responding quickly to customers' special requirements. Many of those consulted viewed strong, technically competent national branches as a minimum requirement for success in the market, frequently going as far as to argue that national production plants were necessary. As Siemens' takeover of VA Tech is unlikely to create

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244 Federal Cartel Office decision in Siemens/Moeller, Ref.: Z. B-7, 36-04, http://www.bundeskartellamt.de/wDeutsch/download/pdf/Fusion/Fusion04/B7-36-04.pdf, paragraph 11.

245 COMP/M.2283 - Schneider/Legrand.

significant impediments to effective competition even if the markets are defined nationally, the question of the relevant geographic market for components and ready-assembled switchboards can be left open.

3. Competition assessment

(417) If the market is taken to be the EEA, there would be no affected market for LV switchboards according to Siemens, since Siemens and VA Tech together have a market share of only [2-5]*%. If the markets were to be defined nationally, Austria would be a horizontally affected market. According to Siemens' figures, their joint market share in 2003 was [20-30]*% (Siemens [5-10]*%, VA Tech [10-15]*%), where the market volume was €[50-60]* million.

(418) The market investigation has however revealed that, given a similar total volume of €[50-60]* million, their market share is actually higher. It showed that Siemens and VA Tech together accounted for […]* (Siemens [2-5]*%, VA Tech […]*). Their chief competitors are Mehler with [30-40]*% and Moeller with [20-30]*%. Schneider Electric and Sprecher Automation are also competitors.

(419) If one assumes separate markets for LV switchboards, which operate as main distribution, sub-distribution and final distribution boards, there are overlaps only in the case of main distribution boards, not with sub-distribution or final distribution boards. In the case of main distribution switchboards (ACB) Siemens and VA Tech together would have a market share of […]* (Siemens [10-15]*%, VA Tech […]*). Mehler would remain market leader with a share of [40-50]*%, ahead of Moeller, which has a share of [20-30]*%.

(420) Siemens produces and supplies all major components needed for fitting and assembling LV switchboards. In addition to the ACB, MCCB and MCB circuit breakers, this includes busways. VA Tech buys all its components from a number of suppliers. As Siemens and VA Tech together have over 25% of the Austrian market for the downstream market in LV switchgear, the market is vertically affected. The market investigation revealed, however, that in 2003 Siemens did not have a market share of more than 15%-20% for any of the circuit breakers or disconnector switches in the EEA or in Austria. In Austria the clear market leader for ACBs and MCCBs is Schneider Electric, while Moeller is the leader in the market for MCBs. There is therefore little danger of market foreclosure, especially as such a strategy could result in suppliers from neighbouring countries such as Germany or the Czech Republic expanding their presence in the region into Austria.

(421) Siemens has been supplying busways on a large scale only since 2004, when the company took over the busways business from Moeller.[246] On the overall market for busways and heavy-duty cable claimed by Siemens, the company would have a market share of less than [5-10]*% in Austria. According to the market investigation, on a separate market for busways Siemens had a market share of [20-30]*% in 2003, followed by Schneider Electric with 20-25% and smaller suppliers such as EAE Elektrik and Pogliano. In view of these market shares, the existence of credible competitors and the fact that suppliers from neighbouring countries could

[246] Federal Cartel Office decision in Siemens/Moeller, Ref.: Z. B-7, 36-04, http://www.bundeskartellamt.de/wDeutsch/download/pdf/Fusion/Fusion04/B7-36-04.pdf.

enter the Austrian market if prices were to rise suggest that market foreclosure is again unlikely.

(422) With regard to PLC in the automation of metallurgical plants (automation platforms) there is an overlap, since both Siemens and VA Tech are suppliers, although VAI does not produce the hardware itself and developed the software for the automation platforms in cooperation with third parties. It is, however, not necessary to decide, whether there could be a separate horizontally or vertically affected market, since there are in any event sufficient alternatives to the products of the two suppliers[247]. All major suppliers of automation solutions for metallurgical plants offer comparable products: SMS Demag (X-Pact), Alstom (Alspa, previously Logidyn), ABB (Industrial IT), TMEIC (Toshiba V- Series), Ingelectric (Sisteam OCS), Rockwell Automation (Automax), Danieli (HiPac).

(423) In all other applications of PLC there are no horizontal overlaps. Concerning vertically affected areas such as LV-switchgear or control gar of energy generation, transmission and distribution, there will be no market foreclosure effects either, since competitors of the parties, which do not have their own PLC, have sufficient alternatives such as Schneider Electric, Rockwell, Omron, Mitsubishi, B&R, Beckhoff, Moeller or ABB.

(424) For the same reasons, i.e. no horizontal overlap, sufficient number of credible competitors, this is also true for load feeders. Important competitors are Schneider Electric, Moeller, ABB, Rockwell, GE and Lovato.

(425) To sum up, it is unlikely that after taking over VA Tech Siemens would be in a position to significantly impede effective competition in the Austrian market, or any other national or EEA-wide market, for LV switchboards and the requisite components.

G. BUILDING SERVICES ENGINEERING AND FACILITY MANAGEMENT

G1. BUILDING SERVICES ENGINEERING

1. Relevant product markets

(426) Siemens and VA Tech are active in the field of building services engineering, which in Siemens's view must be segmented into three levels: the component level, the system level and the installation level. Siemens states that, although there are markets for facility management (see G.2), other services should be allocated to the respective primary market.[248] The component and system levels should be divided according to area of application. At the component level, a distinction should be made above all between the areas of electrical installation technology, safety technology, control and instrumentation technology and HVAC (heating, ventilating and air-conditioning), and at the system level between safety technology and control and instrumentation technology. Lastly, at the installation level, a distinction must be drawn between electrical and mechanical contracting.

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[247] Siemens: Simatic S7 and Simatic TDC; VA Tech: Vantage. […]*.

[248] The market survey found no evidence to the contrary.

(a) Component level

(427) At component level the activities of Siemens and VA Tech do not overlap, as VA Tech is not active in this segment.[249] There are, however, component markets that may be vertically affected. At component level Siemens distinguishes between three affected segments: components for technical management, safety technology components and components for electrical installation technology.

(1) Building management technology

(428) Building management technology involves the measuring, controlling, regulating and using of heating, ventilating, air-conditioning and other technical equipment (but not the controlled heating, ventilating and air-conditioning systems themselves, which are part of the HVAC system, a field in which neither of the parties are active). Based on the findings of its market investigation, the Commission shares Siemens' view that there is at least a separate market for building management technology components. The question of a further subdivision of building management technology components can remain open for the purposes of this Decision.

(2) Safety technology

(429) With regard to the market for safety technology components proposed by Siemens, the Commission's market investigation suggests a distinction ought to be made at least between the areas of fire protection and access control/intruder detection. The question of a further subdivision can remain open for the purposes of this Decision.

(3) Electrical installation technology

(430) With regard to electrical installation components, Siemens distinguishes between low-voltage switchboards and all other low-voltage products, such as switches, outlets, bus systems and cables. With the exception of bus system components, which the Commission's market investigation suggested constituted a separate market, the question of the market definition of the other electrical low-voltage products can remain open for the purposes of this Decision.

(b) System level

(431) At system level, there are overlaps in the control and instrumentation and safety technology segments, and in the case of safety technology a distinction ought to be made at least between the areas of fire protection and access control/intruder detection.[250] At system level, system integrators assemble electrical operating systems from the abovementioned components tailored to meet the needs of the specific user.

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[249] As regards components in the special field of low-voltage switchboards see section F above.

[250] Even if there may be requests for both fire protection and access control/intruder detection, orders are usually placed separately. Moreover, the areas have different legal bases, with fire protection in particular being subject to special public regulations and standards. The vast majority of market participants therefore saw the two areas as separate product markets.

(432) Although there may be further subdivisions at system level, it is sufficient for the purposes of this Decision to distinguish between relevant product markets for fire protection systems, access control/intruder detection systems and control and instrumentation systems.

(c) Installation level

(433) In Siemens' view the installation level covers in particular universal electrical contracting by a contractor. The complete electrical installation covers the design and installation of the energy supply infrastructure. The maintenance of general electrical equipment is also covered.[251] As the individual systems for the building safety and control and instrumentation technology (also known as "works") are regularly put out to tender with the electrical installation as an overall package und awarded as such, suppliers of electrical installation technology usually build the entire electrical system. It is their job to integrate the individual systems in the overall system, connect them to the energy supply and take full responsibility for the electrical system. The individual systems are either produced by the builders themselves or purchased from subcontractors. The single products used in the electrical installation are also regularly bought in. In Siemens' view, it is often impossible to make a clear distinction between installation level and system level.

(434) Siemens views installation in the non-electric area of HVAC (the electrical control of which comes under the separate building management technology, as shown above) as a separate market in mechanical contracting. This market encompasses the complete value chain, consisting of design, engineering, assembly, installation, commissioning, project management and the maintenance of heating, ventilating and air-conditioning systems and sanitary installations.

(435) Both Siemens (through the joint venture Siemens-Bacon) and VA Tech are involved in electrical and mechanical plant building in Austria. VA Tech sees the focus of its operations in the area of building services engineering as being an EPC contractor (EPC = engineering, procurement and contracting), responsible for integrating the various systems (the works). VA Tech includes HVAC in this field of operations. The market investigation showed that there may be a separate, overlapping market for the construction of electrical and mechanical building installations by a technical general contractor (TGC) bearing overall responsibility.[252] TGCs offer comprehensive technical installation of buildings from one source. While TGCs are responsible for all planning, coordination and installation of building services engineering, they often do not carry out parts of the installation themselves, using subcontractors instead. Tenders for TGCs are issued in particular in connection with major projects.

(436) For the purposes of this Decision it can be left open whether there are separate markets for electrical and mechanical installation in the buildings segment, as Siemens claims, or whether there is a separate market for TGC services that covers both electrical and mechanical installation.

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[251] Where they cannot be allocated to facility management, which Siemens views as a separate product market; for further details, see G.2.

[252] The parties' activities in this area relate as a rule to non-industrial building installations (residential and office buildings and such structures as concert halls, museums, hospitals and tunnels).

(437) In any case, it should be noted that neither Siemens nor VA Tech take the view that the market(s) include the civil-engineering planning and execution of buildings, an area in which the parties are not active. This was confirmed by the Commission's market investigation.

2. Relevant geographic markets

(438) In Siemens' view, all the markets referred to above in part G1 (with the exception of the market for installation technology components) are at least EEA-wide.

(439) At component level, Siemens points out that in general there are no technical or legal trade barriers and only occasional variations on European standards particularly the standards and norms prepared by the European Committee for Electrotechnical Standardization (CENELEC). With regard to electrical installation technology components Siemens points out, however, that in its Schneider/Legrand decision the Commission concluded that the components were traded on national markets and the market(s) for such components was (were) to be defined in national terms.[253]

(440) At system level, Siemens argues that standardisation at product level makes it easier to offer systems throughout the EEA. In many areas no national permits were needed, and where they were needed differing requirements were only minor obstacles. Customers bought EEA-wide and suppliers were active at European level at least. Custom-built systems could be used anywhere in the world and there were no regulatory trade barriers.

(441) At installation level Siemens assumes that the market is at least EEA-wide, as there is a bidding market with the major suppliers of electrical installation operating EEA-wide and tenders are also regularly issued at European level. Transport costs are low on the market for electrical contracting. In the case of mechanical contracting the only differences are climate-related, with emphasis either on heating or air conditioning. In Siemens' view this does not justify making regional distinctions.

(442) In the Commission's view, it cannot be excluded that there are national markets at all three levels. Contrary to the view adopted by Siemens, they are in fact likely to exist.

(443) At component level there are significant national differences with regard to market shares and it must be borne in mind that the process of regulating and standardising at European level is by no means complete. This can also be seen from an announcement by Siemens that notes, when writing about […]*'s work, that the work on harmonisation in preparation for the Construction Products Directive is being "continued and stepped up with the […]* working groups." There still seem to be clear national differences with regard to consumption patterns. Similarly, products seem to be distributed at national level. This is the case notwithstanding the fact that many components are manufactured at supranational level.

(444) At system level, the Commission's market investigation produced the following results. On the one hand the market participants questioned (competitors and customers) said that in many cases systems manufacturers and suppliers operated

253 COMP/M.2283 − Schneider/Legrand.

transnationally, EEA-wide or even further afield. However, they also pointed out that the systems were often actually assembled at national level and were subject to national regulations, particularly in the case of fire protection. In addition to the international operators, there are also smaller national suppliers who have a major influence on competition at system level. Demand from consumers was also primarily at national level, with customers attaching great importance to the proximity of the service providers. A large number of the customers and competitors asked considered supply and demand to be nationally structured in the (at least) two product markets for safety technology systems and the product market for building management technology systems.

(445) Lastly, at installation level, it is true that the cost of transporting the equipment is relatively low. However, this certainly does not apply to the labour force, a particularly important factor with regard to installation, and mobility across large areas would increase costs considerably. Siemens' and VA Tech's conduct on the market itself indicates that the markets are national at installation level. […]* [254]

(446) However, the market investigation also produced evidence that bidders from other EU Member States were increasing tendering for major building projects in Austria, particularly for TGC contracts, and a number of such contracts had already be performed. The question of whether the market definition for TGCs can be broader than a national market can remain open for the purposes of this Decision, as, even if the market were defined as national, the merger does not significantly impede competition in the EEA or in a substantial part of it.

3. Competition assessment

(447) At the component level, it is only in a vertical respect that there can be any relevant markets inasmuch as VA Tech is not itself active in these markets and buys products in. Siemens states that it has a market share of over 25% only for building management technology components, in Belgium, Finland, Luxemburg, the Czech Republic, Sweden and Slovakia. However, in these national markets there are no horizontally affected system or installation markets. Siemens estimates its market share in Austria at [20-30]*%, but a number of market participants questioned by the Commission in the course of its market investigation thought it could be larger.

(448) In Siemens' view there are no vertically affected markets for components for building safety technology (fire protection or access control/intruder detection), where it has a total market share of [5-10]*% in Austria and no more than [5-10]*% in any other Member State.

(449) Siemens also maintains there are no affected markets for installation technology components. On an overall market for installation technology components,[255] which − as stated above − the Commission does not accept, only in Latvia would Siemens have a market share of just over [15-20]*%. In Austria the market share would be only [5-10]*%.

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[254] In Austria Siemens operates in the installation area primarily through a joint venture (with Ortner AG) under the name of Siemens Bacon.

[255] For components in the special area of low-voltage switchboards see section F above.

(450) During the Commission's market investigation, however, one competitor raised concerns primarily regarding Siemens' strengthened position in various markets for components for installation and building management technology in Austria. This competitor feared that VA Tech's demand that was not linked to any manufacturer would be switched to Siemens, which would enable Siemens to achieve or bolster a dominant position on components markets. In particular, fears were expressed regarding Siemens' large market shares in component markets for a number of disconnectors and in the market for busbar systems. It should also be noted that Siemens states it has a relatively large market share of a possible Austrian market for contactors (2003: [30-40]*%) and a possible market for programmable logic controllers (2003: [30-40]*%), which Siemens also sees as vertically affected markets.

(451) The market investigation provided insufficient evidence that the merger would put Siemens in a position to foreclose the said component markets in Austria to its competitors. As shown below, there is sufficient competition in the markets for downstream systems and installations. At the immediate downstream systems level, the addition of market shares due to the merger would, moreover, be very small. In the said component markets themselves, Siemens faces competition from large, internationally established companies (in the case of installation technology components, among others ABB and Möller, and in the case of building management technology components, Honeywell, Johnson Controls and Sauter).

(452) According to Siemens, at system level the fire protection systems market would be horizontally affected in Austria, where it has a market share of [30-40]*%, and this might also be the case in some other Member States (however, only on the hypothetical basis of the highest assumption of VA Tech's sales). According to Siemens' figures, at national level the market for intruder detection and other security systems (above all access control) would be horizontally affected only in Austria ([15-25]*%; Siemens: [15-20]*%, VA Tech: [2-5]*%).

(453) In the case of management systems/building management works Siemens believes the market in Austria is horizontally affected, as the combined market share in 2003 was [20-30]*% (Siemens: [20-30]*%, VA Tech: [2-5]*%), and some markets could be affected in other Member States.

(454) According to the company itself, VA Tech is not at all active at the systems level. VA Tech attributes all of its turnover in this area to contracting. VA Tech's figures and Siemens' market assessment also show that the horizontal impact of the merger in the area of individual works outside Austria are marginal, and within Austria there are no relevant markets with a market share addition of more than [5-10]*%.

(455) The Commission's market investigation revealed only occasional and minor concerns regarding the possible impact of the merger at system integration level in the area of individual works in Austria. This is particularly true in the case of fire protection and other security systems (intruder detection, access control). The market participants stressed that there were a sufficient number of alternative systems providers and integrators. Mention was made of companies including Tyco, Schrack-Seconet, Fiegl und Spielberger, Minimax and Labor Strauss (fire protection systems), PKE, ARS, Group 4 Securicor, EVVA, Tyco, Bosch or Securitas/Schrack (intruder detection and other security systems), as well as Johnson, Honeywell and Sauter whom Siemens estimated to each have market shares of [15-20]*% in 2003

(building management systems). There are also value added partners (VAPs), which according to Siemens are medium-size systems producers and electrical contractors with engineering and IT expertise that offer systems-level integration using bought-in components and are increasingly offering ancillary services.

(456) The merger will not create any significant vertical impediment to competition, as there is genuine competition upstream at component level and downstream at installation level (as is shown below) and Siemens is unlikely to be able to foreclose the market to competitors.

(457) At installation level, there are significant overlaps between VA Tech and Siemens only in Austria.[256] Siemens puts its share of the market for electrical building installation in Austria at [2-5]*% and VA Tech's at [5-10]*%, while their combined share of the market for mechanical building installation is put at [2-5]*%. Therefore, according to Siemens' figures, neither of the markets for electrical and mechanical contracting is affected. The market investigation confirmed this claim in the case of mechanical contracting. There are, however, doubts as to whether, contrary to Siemens' estimation, Siemens und VA Tech together may not have over 15% of the market for electrical contracting. Most pronounced is the direct competitive position and the respective market strengths of Siemens and VA Tech in the possible submarket for technical general contractors, where there are fewer medium-sized and small companies active than in the area of general electrical and mechanical contracting. A number of market participants in Austria believe that the combined market share is well over 15%, although in some cases estimates vary considerably and do not produce a clear picture. There is general agreement that Siemens und VA Tech would have the strongest market position regarding TGC contracts in Austria. These contracts are often awarded by tendering procedures. Some of the customers consulted pointed out that the merger would reduce the number of suppliers in Austria. However, only a few said that where they awarded TGC contracts to VA Tech or Siemens the respective other company was otherwise the most promising competitor.

(458) VA Tech's and Siemens' key competitors for TGC contracts in Austria are the international operators RWE Solutions and MCE. In recent years MCE has taken over activities such as non-industrial building services engineering from ABB Österreich. Other major international suppliers of TGC services, such as the Dutch Imtech group (through its German subsidiary) and M+W Zander (Germany) perform TGC contracts in Austria. The market investigation also showed that medium-sized electrical contractors such as, for example, Klenk & Meder, Landsteiner and Bostelmann operate in the market through consortia with HVAC companies. Through the acquisition of suppliers of mechanical contracting, both Klenk & Meder and Bostelmann have recently acquired their own internal HVAC capacity, which puts them in the position to take on TGC contracts alone. There are also some smaller Austrian companies operating as technical general contractors (e.g. Elmont).

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[256] This is based on the assumption that Siemens is not active in the controlling function in the Czech Republic. This means that the company Eltodo, in which, according to market participants, Siemens has a 49% holding and which appears to be active in the area of electrical contracting, is not controlled by Siemens.

(459) The mere presence of several major international operators shows that even in the case of major building projects that would make particular demands on the financial resources of TGCs, it cannot be assumed that after the merger Siemens' and VA Tech's operational scope would extend beyond the control of competition. The market investigation also revealed that if there were not enough bidders for TGC contracts, particularly for major projects, customers would simply issue individual tenders for several systems/works instead of a global TGC contract und take over planning and integration themselves or engage the services of engineering consultants. This is already happening today. In particular large customers such as the major construction companies Porr and Strabag have in recent years developed their own building services capacities to perform TGC tasks themselves.

(460) For these reasons, it is therefore unlikely that the merger will significantly impede competition by creating or strengthening a dominant market position in TGC services in Austria. This is also the case with electrical contracting, where, in addition to the above-mentioned companies, there are also a wide variety of medium-sized and small suppliers.

G2. FACILITY MANAGEMENT

1. Relevant markets

(461) Both Siemens and VA Tech offer facility management services. Facility management includes technical facility management (including energy management, inspection, and the maintenance and repair of building services equipment), commercial facility management (especially accountancy) and general facility management (including security services, cleaning and caretaker services). According to Siemens, these three forms of facility management (technical, commercial and general) constitute a single product market. The market investigation, however, found that they are separate markets, since while the three forms of facility management are sometimes requested together, demand is mostly for individual forms and a number of competitors do not offer the full range of services. However, the market investigation substantiated Siemens' view that any further distinction based on types of building (such as residential and office buildings, shopping centres or industrial plant) or size of buildings was unnecessary. As the merger does not give rise to any competition concerns whatever the market definition, i.e. whether there are separate markets or a single market, the question of the precise product market definition can be left open.

2. Relevant geographic markets

(462) Siemens takes the view that the market for facility management is EEA-wide. However, most of the market participants consulted as part of the market investigation felt that the markets for the three different forms of facility management were national.[257] The question of the precise geographical market definition can, however, be left open for the purposes of this Decision as effective competition is not significantly impeded in any of the alternative geographical markets examined.

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[257] Cf. COMP/M.3172 − Ferrovial/Amey (ultimately left open).

3. Competition assessment

(463) According to Siemens, irrespective of whether the markets are defined as national or larger, neither the facility management market as a whole, nor the technical facility management, commercial facility management and general facility management markets would be affected. In the cases of commercial and general facility management, the Commission's market investigation discovered no evidence that the planned merger would have any impact on competition. The market investigation also reveals that even in the case of technical facility management in Austria, where the direct competitive position and the respective market strengths of Siemens and VA Tech are most pronounced, competition is unlikely to be impeded significantly and Siemens/VA Tech are unlikely to achieve a dominant position.

(464) Siemens' figures for its share of the technical facility management market in Austria and those of VA Tech and its most important competitors are as follows: Siemens [5-10]*%, VA Tech [5-10]*%, Energiecomfort [10-15]*%, Honeywell [5-10]*%, Axima [5-10]*%, MCE [5-10]*%, M+W Zander [5-10]*% and Vamed [2-5]*%. The other market participants, however, believe Siemens and VA Tech to be in a stronger position on the Austrian market. Competitors' estimates are basically as follows: Siemens 15-25%, VA Tech 10-22%, Axima 12-20%, VAMED 20%, M&W Zander 10%, Energiecomfort 9%, Teletech 8%, MCE 8%. Customer estimates reflect this discrepancy, although customers tend to lower estimates of the market shares of Siemens (6-20%, in one instance 30%) and VA Tech (6-20%) and estimate that MCE's and Teletech's shares are somewhat larger (both 5-15%).

(465) Most of Siemens's and VA Tech's customers indicated in the market survey that the respective other party was not the most promising competitor in the context of the tendering or negotiated procedure. Many replies pointed out that in Austria there are a number of other suppliers whose services in the area of technical facility management are from a customer standpoint basically equivalent to those of VA Tech and Siemens. Even smaller companies would, especially at regional level, exert competitive pressure on the above-mentioned larger competitors. Customers also consider foreign suppliers of technical facility management services, who are not yet operating in Austria or operating only on a small scale, to be serious potential competitors (e.g. WISAG, Dussmann, HOCHTIEF and DIW, all of which come from Germany). Hochtief and DIW are already working on projects in Austria. Finally, the market investigation also revealed that in view of the various financially strong actual and potential competitors there are no grounds to fear that competition will be impeded significantly even in the case of major contracts.

H. INFRASTRUCTURE INSTALLATIONS AND ELECTRICAL EQUIPMENT FOR ROPEWAYS

H1. TRAFFIC INFRASTRUCTURE INSTALLATIONS

1. Relevant markets

(466) With respect to traffic infrastructure installations, there is a small amount of overlap between Siemens and VA Tech in Austria only.

(a) Street lighting, traffic signalling equipment and parking-lot management systems

(467) Siemens and - to a lesser extent - VA Tech are both active in street lighting, traffic signalling equipment and parking-lot management systems. The merger raises no competition concerns under any of the possible market definitions, i.e. taking the above infrastructure installations as separate markets or an overall market. The exact definition of markets can therefore be left open for the purposes of this Decision. The same applies to the question of whether, as Siemens believes, there is an EEA-wide market or markets, or whether national markets should be assumed.

(b) Traffic control systems

(468) There is also an overlap between the activities of Siemens and VA Tech in traffic control, although VA Tech's activities have hitherto been confined solely to Austria – and even there they are of minor significance. In the traffic control sector a distinction can be drawn between national/regional traffic management systems for the trunk road network (motorways and expressways) and municipal traffic computer centres for controlling traffic on major urban roads.

(1) National/regional traffic management systems

(469) National/regional traffic management systems for the trunk road network consist mainly of a central traffic control centre (which gathers, processes and disseminates traffic-related data) and various outlying installations (route stations with traffic data logging equipment and traffic control equipment). The market investigation showed that − in Austria at least − traffic control centres (including subcentres) were commissioned separately from the various outlying installations. The fact that different companies tender for outlying installations and for control centre technology also suggests that the product markets are distinct. From a geographical point of view, it is worth noting that the technical standards laid down for the Austrian traffic management system are the same as those applied in Germany for example and that, as a result, German companies have already taken part in calls for tenders in Austria. In the end the product and geographic market definition can remain open for the purposes of this Decision, as the merger raises no competition concerns under any of the possible market definitions.

(2) Municipal traffic computer centres

(470) Municipal traffic computer centres control traffic detection and flow management in urban areas. They consist essentially of a traffic computer (or interconnected computers under an overarching traffic management system), control devices for light signalling equipment and detection equipment. According to customers and competitors surveyed by the Commission, the standards and technical requirements for municipal traffic computer centres differ widely from those applied to national traffic management systems. In the case of municipal systems, the control centre technology and individual control installations are usually commissioned as a package, which is not the case with national systems. Here too there is no need for an exact product and geographic market definition for the purposes of this Decision, as the merger would not significantly impede effective competition in the EEA or in a substantial part thereof, no matter which of the possible definitions were applied.

2. Competition assessment

(a) Street lighting, traffic signalling equipment and parking-lot management systems

(471) The merger has only a marginal effect on municipal infrastructure - even if the markets in question are defined as national ones - as the only horizontal market affected is that for *light signalling equipment* in Austria, but even there Siemens states that the added market share is less than 1%, barely strengthening Siemens' current position of [30-40]*%. Moreover, public tendering is mandatory in this field, so that market entry appears to be possible in Austria (the market investigation even produced some evidence of an emerging European market) and there are sufficient alternatives to Siemens, namely Swarco, Signalbau Huber (M-Tech), Gesig, Dambach, Kapsch and Peek Traffic.

b) Traffic control systems

(1) National/regional traffic management systems

(472) In the field of national/regional traffic management systems for motorways and expressways, VA Tech has hitherto been active solely in Austria and has only set up two small route stations for traffic flow management. […]*on the one occasion when there was a call for tenders for control centre technology and IT for the Austrian traffic management system, but the contract was awarded to a joint venture between Siemens and Heusch/Boesefeldt. The market investigation confirmed Siemens' statement that, for the foreseeable future, there is no demand in Austria for further control centre technology and IT at the core of the national traffic management system. Furthermore, the same technical standards apply in Austria as in Germany, so that suppliers operating in Germany could easily take part in calls for tenders in Austria (should demand resurface). The only potential buyer (Asfinag, the state-owned enterprise responsible for Austria's entire motorway and expressway network) raised no objections to the merger. Moreover, taking into account Asfinag's power as a buyer, it cannot be stated that the merger would significantly impede effective competition.

(473) The same applies to the setting-up of outlying installations of the Austrian traffic management system for motorways and expressways, which are the subject of separate calls for tenders. Asfinag estimates that in the next ten years the total value of orders for outlying installations to be put out to tender will be EUR 350 million. Of the contracts awarded to date, most have been won by Siemens or by consortia involving Siemens. VA Tech has taken part in award procedures alongside a number of other tenderers (in particular construction firms with their own electrical departments, such as Strabag and Alpine Energie). To date VA Tech has only set up two route stations for traffic flow management. The sole customer in Austria, Asfinag, claims that, after the merger, there will be a range of firms able to fill VA Tech's role in the market and compete with Siemens for contracts for outlying installations: Alpine Energie, Strabag ATG, Grimm DÜRR and RWE. Asfinag has therefore raised no objections to the merger. The market investigation also revealed that, given the identical technical standards in Germany, firms operating there (such as Weiss Electronic, Dambach, QSG and ave) are also in a position to set up outlying installations for the Austrian traffic management system.

(474) Irrespective of whether the relevant product market is considered as a whole or divided into control centre technology and outlying installations, the merger does not lead to any significant impediment to competition in the EEA or in a part thereof and in particular does not lead to the creation or strengthening of a dominant position.

This also applies even if the relevant geographic market is still considered to be Austria, as VA Tech's activities are essentially confined to Austria.

(2) Municipal traffic computer centres

(475) VA Tech is less active in municipal traffic computer centres than in national/regional traffic management systems. According to its own statements, VA Tech has obtained […]* in the last five years - to expand an urban traffic computer centre in Austria. Its main competitors in this field are Siemens, Signalbau Huber and Gesig. The market investigation also found that Zetsch, Pichler and Alpine Energie are significant competitors, to which must be added the actual or potential competitors from Germany - Dambach, Stoye and Weiss Electronic. Dambach for one states that it has already taken part in calls for tenders in Austria. The customers surveyed by the Commission (local authorities in major Austrian towns and cities) raised no objections to the merger on competition grounds. Given VA Tech's hitherto weak market position and the presence of a range of serious current and potential competitors, the merger does not lead to any significant impediment to competition in the EEA or in a substantial part thereof and in particular does not create or strengthen a dominant position. This applies whether the relevant geographic market is defined as national or as extending beyond Austria's borders (as VA Tech only operates in Austria).

(476) Since the merger does not lead to any significant impediment to competition in either national/regional traffic management systems or municipal traffic computer centres, no competition concerns would be raised either if these two sectors were deemed to overlap to form a single market.

H2. WATER TREATMENT INSTALLATIONS

1. Relevant markets

(477) The question of the relevant market can also remain open in the water treatment field, as the proposed merger raises no competition concerns. Siemens assumes that the market is at least EEA-wide. In an earlier Commission decision the scope of the geographic market was left open, although the Commission's investigations also pointed to an EEA-wide market.[258] In the end the exact geographic market definition can remain open in the present case, as effective competition would not be significantly impeded in any of the alternative geographical markets in the EEA - or in a substantial part thereof - that have been investigated.

2. Competition assessment

(478) In the water treatment field the only slight overlap is in electrotechnical components for water treatment installations, where in any case the market shares do not exceed [2-5]*% even if the market is defined as national and subdivided further (e.g. biofiltration, dosing systems). The merger does not therefore lead to a significant impediment to effective competition.

H3. ELECTRICAL EQUIPMENT FOR ROPEWAYS

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[258] Case IV/M.1514 Vivendi/US Filters, paragraphs 14 *et seq.*

1. Relevant markets

(479) In other non-industrial plant building, the planned merger leads to overlaps as regards electrical equipment for ropeways. Both Siemens and VA Tech supply ropeway manufacturers with electrical components and ropeway operators with all the electrical equipment they need as a package.

(a) Supply of electrical components to ropeway manufacturers

(480) There are now essentially two large manufacturers of ropeway installations worldwide - Doppelmayr/Garaventa and Leitner/Pomagalski. Both firms supply their customers mainly with turnkey systems, encompassing both mechanical and electrical installations. The two manufacturers used to buy in a large proportion of their electrical equipment, but they have since considerably expanded their own electrical capabilities and now obtain only a very small fraction of the electrical components they need from third parties (e.g. Siemens, Pilz and ABB). Siemens states that the specifications for electrical ropeway building are not fundamentally different from those for other electrical industrial plant building. In particular, the components used are said to be similar and there are now no longer any separate developments for ropeway technology as regards power and automation. The Commission's market investigation also found some evidence to support this view. An exact definition of the relevant market can therefore be left open, as the merger would not seriously impede effective competition in the EEA or in a substantial part thereof, even assuming a narrow definition of the product market (specific electric components for ropeways). The same applies to the geographic market definition, although the market investigation points to an EEA-wide market.

(b) Supply of electrical equipment to ropeway operators

(481) While the great majority of ropeway operators buy turnkey systems, others purchase individual components of ropeway installations (mechanical parts, cables, electrical and automation technology, etc.) separately from different suppliers and either assemble them themselves to produce a complete ropeway or commission engineering firms to do this for them. Such customers report that they do not normally buy components as separate individual parts (e.g. engine, power converter, control system, display system, instrumentation and control technology, etc.) but obtain all electrical equipment for ropeways from suppliers as a unit. The question of whether packages of electrical equipment for ropeways could constitute a separate product market can however remain open, as the merger would not significantly impede effective competition in the EEA or a substantial part thereof, even assuming such a product market definition.

(482) From a geographical point of view, Siemens claims that the market is EEA-wide. By contrast, most of the customers surveyed by the Commission argue that the market is a national one. The market investigation also showed that previously existing barriers to market entry (legal standards for ropeway electrics) were removed by Austria's implementation in 2004 of Directive 2000/9/EC of the European Parliament and of the Council of 20 March 2000 relating to cableway installations designed to carry persons[259] and that, since the uniform standards came into effect,

[259] OJ L 106, 3.5.2000, p. 21.

bidders from other Community Member States have increased their presence in Austria. However, the question can remain open, as the merger would not significantly impede competition in any of the alternative geographic markets that have been investigated.

2. Competition assessment

(a) Supply of electrical components to ropeway manufacturers

(483) In response to the market investigation, it was stated that Siemens/VA Tech would acquire a monopoly in the supply of electrical components to ropeway manufacturers. However this is incorrect. Both of the large global players in ropeway manufacturing - Doppelmayr/Garaventa (Austria/Switzerland) and Leitner/Pomagalski (Italy/France) - produce much of the electrical equipment for their ropeways themselves. Only to a very small extent do they buy in electrical components for their ropeways. […]* However, the manufacturers also purchase electrical components from a whole series of other suppliers. VA Tech provides only a very minor part of these supplies. Consequently, Doppelmayr/Garaventa and Leitner/Pomagalski stated in the market survey that the merger would have no implications for competition in electrical components for ropeways. It can therefore be assumed that the planned concentration would not lead to a dominant position for Siemens and VA Tech, even on a narrow definition of the relevant product market (electrical components for ropeways) and geographic market (Austria), or to any other significant impediment to competition.

(b) Supply of electrical equipment to ropeway operators

(484) There is also an overlap between Siemens and VA Tech in the supply of separate electrical equipment to ropeway operators who do not buy turnkey installations or who renew part of their installations. At present Siemens and VA Tech are the biggest suppliers of electrical equipment to ropeway operators in Austria. Siemens argues that, even after a merger between VA Tech and Siemens, there would still be no shortage of independent suppliers. This view was also largely confirmed by the market investigation. Up to now Doppelmayr/Garaventa and Leitner/Pomagalski have generally supplied complete ropeway installations, but, given their growing in-house expertise in the electrical field, they are also exerting competitive pressure on firms that supply only electrical equipment for ropeways. According to customers, both Doppelmayr/Garaventa and Leitner/Pomagalski are also able and willing to supply electronic equipment for ropeways separately.

(485) Furthermore, the market investigation found that smaller firms are gaining ground. In Austria this applies in particular to the firm Berchthold, which customers readily expect to take over the market role currently played by VA Tech. Foreign suppliers of electrical equipment for ropeways are also playing a bigger part, for example Frey (Switzerland),[260] SISAG (Switzerland), BEW (Italy) and Seirel (France). The two Swiss firms in particular can already cite projects in Austria as a reference. Access was made much easier for foreign suppliers when Austrian technical standards for

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[260] The firm was previously active in Austria only through its subsidiary STG, which filed for insolvency in 2004. However, Austria has been and still is among Frey's areas of activity, as evidenced by its participation at the Austrian trade fair "INTERALPIN" (see the list of exhibitors at http://www.congress-innsbruck.at/events/interalpin/deutsch/Ausstellerliste2005.pdf).

ropeways (including electrical equipment) were brought into line with the requirements of Directive 2000/9/EC[261] in 2004.

(486) In view of these facts, it cannot be assumed that the concentration would impede effective competition in the common market or in a substantial part thereof, particularly not as a result of the creation or strengthening of a dominant market position.

I. OTHER IT SERVICES

1. Relevant market

(487) In addition to their activities in the various markets described above, Siemens and VA Tech also operate in other areas of information technology. There is no overlap between their respective commercial activities as regards hardware and software, the only area in which there is such an overlap being IT services. Siemens assumes a uniform product market for IT services. However, the exact definition of the market can remain open, as the merger has no relevant implications for competition from either a sector-specific angle or applying a distinction based on the size of buyers. The same applies to the question of whether the market is EEA-wide, as Siemens argues, or whether it should be considered as narrower, i.e. corresponding to national level or to a certain language area (the fact that VA Tech operates only in Austria and Germany points to such a conclusion).

2. Competition assessment

(488) No market is affected in the field of IT services. The Commission's market investigation unearthed no evidence that the concentration would have any relevant implications for competition. It cannot therefore be assumed that there will be any significant impediment to effective competition in the field of other IT services.

VI. COMMITMENTS

(489) By letter dated 25 May 2005, Siemens submitted commitments under Article 8(2) of the Merger Regulation in order to address the Commission's competition concerns. These commitments were slightly amended by letter dated 13 June 2005. The full text of the commitments is set out in Annexes I and II to this Decision and forms an integral part of the Decision.

(490) The gist of the commitments relating to equipment and services for hydroelectric power stations is as follows: Siemens undertakes to sell VA Tech Hydro GmbH & Co. ("VA Tech Hydro"), a power-generation company forming part of VA Tech, to a suitable buyer that is independent of the parties and subject to the Commission's approval. VA Tech Hydro will be sold as a going concern, i.e. including all tangible and intangible assets existing at the time the commitment was given, and its entire workforce. Siemens promises to keep intact the viability and competitiveness of the business to be divested. It also undertakes to manage the business separately up to the time of the sale.

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[261] OJ L 106, 3.5.2000, p. 21.

(491) To dispel the Commission's competition concerns in the field of metal plant building, Siemens makes the following commitments:

(1) Siemens will exercise its right to be represented on the shareholders' committee of SMS, as enshrined in the SMS shareholders' agreement, by appointing as its representative an independent trustee, with the Commission's approval; in the period up to the appointment of the trustee, Siemens will not take part in meetings of the shareholders' committee.

(2) Siemens will do its utmost to ensure that the seats it holds on SMS' supervisory board pursuant to the shareholders' agreement and the concomitant legal status are assumed by two independent trustees appointed by Siemens, with the Commission's approval. The trustees will also exert all other information rights, consultation rights and administrative rights, including voting rights, instead of Siemens. […]*

(3) Siemens will ensure that only the aforementioned trustees and not Siemens will receive information from SMS that is not publicly available. The only exceptions to this obligation are as follows:

– information required by Siemens to meet its legal obligations regarding financial reporting and drawing up the group's financial statement […]*;

– information on the valuation of Siemens' holding in SMS at 31 December 2004 and relating solely to the period up to that date […]*.

(4) Siemens will not contest, cancel or revoke the exercise of the put-option at 31 December 2004;[262] for a specified period it will not acquire any shares in SMS, unless the Commission has found that the market structure has changed in such a way that this undertaking is no longer necessary.

VII. COMPETITION ASSESSMENT OF THE PROPOSED CONCENTRATION IN THE LIGHT OF THESE COMMITMENTS

A. EQUIPMENT FOR HYDROELECTRIC POWER STATIONS

(492) The sale of VA Tech Hydro removes entirely the overlap for competition purposes between Siemens and VA Tech in the market for equipment for hydroelectric power stations. The commitments were presented to customers and competitors as part of a market test. They considered that Siemens' divestment of VA Tech Hydro was an entirely effective measure to remove the competition concerns raised by the proposed merger as originally notified. A number of respondents to the market test pointed out that VA Tech Hydro's activities in fossil-fuel power generation (i.e. a field in which there are no competition concerns) would have to remain with the business being divested in order to guarantee its market viability. It was also pointed out that the business divested would have to have access to products relating to network control technology for hydroelectric power stations. Such access is ensured

262 […]*.

at present by the 50% share in VA Tech SAT GmbH & Co. ("SAT"). The remaining shares in SAT are held by VA Tech. The wording of the commitment meets both of these concerns.

B. METAL PLANT BUILDING

(493) In the light of the Commission's investigations, the commitments concerning SMS as described at paragraph (491) are sufficient to reasonably dispel the competition concerns regarding the markets for metal plant building. The commitments ensure that Siemens cannot use its position as minority shareholder […]* to obtain any strategic knowledge about SMS' business policy. In addition, Siemens' voting rights will be transferred to the trustee or trustees to be appointed. Furthermore, the commitments ensure that Siemens will permanently and irrevocably sell its holding in SMS by exercising the put-option or by other means. There is therefore no reason for any weakening of competition between Siemens/VAI and SMS in the markets affected, something which would be expected in the absence of such commitments.

(494) Siemens' undertaking to transfer the exercise of its aforementioned rights to an independent trustee appointed with the Commission's approval takes due account of the fact that, with effect from 31 December 2004, Siemens exercised the put-option for the purposes of transferring its holding to SMS, and that the sale of this holding to an independent buyer, which would have been required otherwise, has already been initiated. Siemens' commitment not to obtain information on SMS that is not publicly available allows exceptions that are necessary to enable Siemens to meet its legal obligations regarding financial reporting and drawing up the group's financial statements and to allow Siemens to defend its legal position in the ongoing legal dispute. In each case they are confined to what is strictly necessary for the purpose in hand. In particular, the exception for information that is relevant to the legal dispute is confined to information relating to the past, thereby excluding from the outset any information that might be significant for SMS' future competitive strategy. The transfer of the voting rights to the trustees ensures that Siemens cannot, even as a minority shareholder, influence any strategic decisions of SMS.

(495) The commitments were presented to customers and competitors as part of a market test. The overwhelming majority of those canvassed believe that the commitments are suitable to prevent the transmission to Siemens of strategic knowledge about SMS and hence to meet competition concerns. Any criticism of the commitments was directed mainly at the general choice of a trusteeship solution rather the immediate sale of Siemens' holding in SMS. It was suggested by some that the trusteeship solution could in itself dampen competition if it were to be maintained over a long period - depending on the duration of the legal dispute on the valuation of Siemens' holding in SMS. However, such criticism is irrelevant to the competition concerns raised by the Commission in this Decision relating to the markets for metal plant building. As has been explained, the Commission's concerns are based on the expectation of a weakening of competition between Siemens/VAI and SMS because Siemens might have access to strategic knowledge by dint of its rights as minority shareholder. This access to strategic knowledge is no longer possible as a result of the commitments. Also, it can be assumed that the capacity of SMS' corporate bodies to act is guaranteed on the basis of the legal provisions, in particular as the business management of the company is determined by the majority

shareholder. There is therefore no indication that the trustee solution as such will lead to an impediment to competition.

(496) Finally, it was argued that Siemens would not be able to fulfil these commitments as they would encroach on the legal position of the majority shareholders of SMS under the shareholders' agreement. However, this is not the case. […]* The appointment of trustees to represent Siemens on the shareholders' committee and the supervisory board changes neither Siemens' position as shareholder nor the legal status of the shareholders' agreement. In particular the trustees do not acquire the legal status of SMS shareholders in Siemens' place. Under these circumstances it is not clear why Siemens should be unable to fulfil the commitments or why this would constitute encroachment on the rights of third parties.

VIII. CONDITIONS AND OBLIGATIONS

(497) In accordance with the first sentence of the second paragraph of Article 8(2) of the Merger Regulation, the Commission may attach to its decision conditions and obligations intended to ensure that the undertakings concerned comply with the commitments they have entered into vis-à-vis the Commission with a view to rendering the concentration compatible with the common market.

(498) Measures that give rise to a structural change to the market must be made subject to conditions, while the implementing steps necessary to achieve this result constitute obligations on the parties. Where a condition is not fulfilled, the Commission decision declaring the merger to be compatible with the common market is null and void. Where the parties commit a breach of an obligation, the Commission may revoke the clearance decision in accordance with Article 8(6)(b) of the Merger Regulation; fines and penalty payments may also be imposed on the parties under Article 14(2)(d) and Article 15(1)(c) of the Merger Regulation.

(499) In accordance with the fundamental distinction described above, the Commission makes its decision subject to the condition of full compliance with the commitment to sell VA Tech Hydro as a going concern, including all of its activities in the field of equipment and services for hydroelectric power stations, by the end of the extended deadline for sale to a purchaser approved by the Commission.

(500) All remaining parts of the commitments set out in Annex I, in particular the obligation to maintain temporarily and manage separately the business to be divested and the details concerning the trustee to be appointed by the parties, must be made the subject of obligations, since they are meant to only implement the aforementioned conditions.

(501) In view of the undertakings in Annex II, the Commission makes this decision conditional on full compliance with the commitment that Siemens will not contest, cancel or revoke its exercise of the put-option as of 31 December 2004 and will not, for a specified period, acquire any shares in SMS, unless the Commission finds that the market structure has changed in such a way that this undertaking is no longer necessary. The remaining commitments set out in Annex II regarding the rights enjoyed by Siemens as a shareholder of SMS under the shareholders' agreement must also be the subject of obligations.

IX. CONCLUSION

(502) Provided that the commitments entered into by Siemens are complied with in full, it can be accepted that the planned concentration does not lead to a significant impediment to effective competition in the common market or in a substantial part thereof and in particular that it does not create or strengthen a dominant position. Subject to full compliance with the commitments set out in the Annex, the concentration can therefore be declared compatible with the common market in accordance with Articles 2(2) and 8(2) of the Merger Regulation and compatible with the functioning of the EEA Agreement in accordance with Article 57 of that Agreement,

HAS ADOPTED THIS DECISION:

Article 1

The notified concentration by which Siemens acquires control over VA Tech within the meaning of Article 3(1)(b) of the Merger Regulation is hereby declared compatible with the common market and with the functioning of the EEA Agreement.

Article 2

Article 1 shall apply on condition that the commitments entered into by Siemens and set out at points B.1 to 3 of Annex I to this Decision and in the first and third sentences of point B.IV of Annex II to this Decision are complied with in full.

Article 3

This Decision is issued subject to the obligation that the other commitments entered into by Siemens and set out in Annexes I and II are complied with in full.

Article 4

This Decision is addressed to:
Siemens Aktiengesellschaft
Wittelsbacherplatz 2
Germany - 80333 Munich

For the Commission
Neelie KROES
Member of the Commission

ANNEX 1

The full original text of the conditions and obligations referred to in Articles 2nd and 3rd may be consulted on the following Commission website: http://ec.europa.eu/comm/competition/index_en.html

EUROPEAN COMMISSION

The Hearing Officer

FINAL REPORT OF THE HEARING OFFICER IN CASE COMP/ M.3653 - SIEMENS / VA TECH

(pursuant to Articles 15 and 16 of Commission Decision (2001/462/EC, ECSC) of 23 May 2001 on the terms of reference of Hearing Officers in certain competition proceedings – OJ L162, 19.06.2001, p.21)

The notified concentration

On 10 January 2005, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 of 20 January 2004 ("the Merger Regulation") whereby Siemens AG of Germany ("Siemens") acquires within the meaning of Article 3(1)(b) of the Merger Regulation control of the whole of the Austrian company VA Tech AG ("VA Tech") by way of public bid announced on 10 December 2004.

The proposed transaction would lead to numerous horizontal and vertical overlaps in the fields of power generation, power transmission and distribution, automation & drives, rail transport equipment, metallurgy and electrical plant engineering, building technology and communal infrastructure.

The initiation of proceedings and the issue of access to key documents

At the end of the first phase of the investigation, the Commission concluded that the concentration raised serious doubts as to its compatibility with the common market and with the EEA Agreement. On 14 February 2005, the Commission therefore initiated proceedings in accordance with Article 6(1)(c) of the Merger Regulation.

On 2 March 2005 Siemens was provided with access to the "key documents" in the Commission file in accordance with chapter 7.2. of the "Best Practices on the conduct of EC merger control proceedings" ("Best Practices"), as determined by the Directorate General for Competition. By letter of 16 March 2005 Siemens requested access to further documents. In particular, they considered that documents transmitted by VA Tech ought to be of particular interest for the case and should therefore qualify as key documents. In their reply of 6 April 2005, the Directorate General for Competition confirmed their view that the documents in question did not constitute key documents. It was considered that irrespective of their source, the documents requested did not constitute substantiated submissions of third parties running counter to the notifying parties' views as set out as definition of key documents in the Best Practices. Siemens did not officially request me to intervene in this respect.

The issuance of the statement of objections and the procedural issue created by Voith Siemens with their request for an oral hearing: The notion of other involved parties

A statement of objections was sent to Siemens on 22 April 2005. In the following days, access to the Commission's file was granted. Siemens was asked to reply by 6 May 2005. This deadline was complied with.

Neither Siemens, nor VA Tech requested to develop their arguments in a formal oral hearing.

However, with a letter dated 6 May 2005 and registered 10 May 2005, the joint venture Siemens Voith Hydropower Generation GmbH & Co. KG ("Voith Siemens"), between J.M. Voith AG and Siemens AG, requested in writing a formal oral hearing pursuant to Article 14(2) of Commission Regulation (EC) 802/2004 of 7 April 2004 ("the Implementing Regulation"). They considered that, given that they might be directly affected by a remedy that Siemens might propose to the Commission, they should be considered as "other involved party" in the sense of Article 11 (b) of the Implementing Regulation.

In my written response of 13 May 2005, I took the view that Voith Siemens did not qualify as an "other involved party" and was therefore not entitled to request a formal oral hearing, in the presence of the Member States and of the associated services of the Commission, although they could of course request to be heard by the people in charge in writing or orally at any point in time. Thereinafter, the seller and the target of a concentration, companies which are indicated as examples for "parties to the proposed concentration" in Article 11 (b) of the Implementing Regulation constitute "other involved parties", because they are directly and inevitably concerned by the implementation of the proposed concentration. This determines the fact that they are "Parties to the proposed concentration" as expressed in the Regulation.

By contrast, it is uncertain and can only be determined at the end of a merger proceeding whether companies will be directly affected by commitments which need to be proposed by the notifying parties and have to be accepted by the Commission.

Therefore, the mere fact that the remedies agreed on in the context of a merger proceeding might have an impact on a company cannot justify that the latter qualifies as an "other involved party", since they do not fall under the denomination of "Parties to the proposed concentration"

The market test

On 25 May 2005, Siemens offered commitments which were slightly amended on 7 June 2005. The market test of the proposed undertakings has been generally positive.

I have not been asked to verify the objectivity of the enquiry.

The further requests for access to documents also in relation to the notion of other involved parties.

By letter to the relevant Commission service dated 9 June 2005 and by letter to me dated 22 June 2005, SMS Demag AG, and its parent company SMS GmbH ("SMS") requested access to the case file. This request was rejected by the Directorate General for Competition on 22 June 2005 on the ground that SMS was recognized as an interested third party and not as an "other involved party" in the sense of Article 11 (b) of the Implementing Regulation

and was therefore not entitled to have access to the file under the Implementing Regulation. By decision of 6 July 2005 pursuant to Article 8 of the Hearing Officer's Mandate, I confirmed the point of view taken by the Directorate General for Competition on the grounds that the mere fact that the remedies envisaged in the context of a merger proceeding might have an impact on a third company could by no means justify that the latter qualifies as an "other involved party" in the sense of Article 11 (b) of the Implementing Regulation.

This is confirmed by whereas 11 of Regulation 802/2004 according to which, upon request, other involved parties must be granted the opportunity before notification to discuss the intended concentration informally with the Commission. This shows that the legislator acted on the assumption that the identity of an "other involved party" results from the intended concentration itself, this being determined before potential remedies are proposed. Accordingly, the qualification of a company as an "involved party" cannot depend on the manner in which the remedies eventually proposed affect certain companies.

Notwithstanding the above, SMS was provided with a non-confidential version of the Statement of Objections and was given the opportunity to comment thereon. Furthermore, SMS received non-confidential versions of the commitments in the context of the market test, insofar as they related to the metallurgical markets in which SMS have an interest. Therefore, I take the view that SMS had ample opportunity to state its views during the proceeding.

On 24 June 2005 Siemens requested access to the file for non-confidential documents received by the Commission since the statement of objections. The company was provided with the opportunity of obtaining access to these documents on 1 July 2005.

In the light of the above, I consider that the rights to be heard of all participants to the present proceeding have been respected.

Brussels, 6 July 2005

(signed)

Serge DURANDE

EUROPEAN COMMISSION
Competition DG

Policy and Strategic Support

OPINION

of the ADVISORY COMMITTEE on CONCENTRATIONS

given at its 133rd meeting on 29 June 2005

concerning a draft decision relating to

Case COMP/M.3653 – SIEMENS/VA Tech

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1. The Advisory Committee agrees with the Commission that the notified operation constitutes a concentration within the meaning of Article 3(1)(b) of Regulation 139/2004 and that it has a Community dimension.

2. The Advisory Committee agrees with the Commission that for the purposes of assessing the present operation, the relevant product markets are:

In power generation:

a) the equipment for hydro power plants;
b) the provision of turnkey combined cycle gas-fired power plants;
c) the supply of gas turbines, the exact delineation of this(these) market(s) can be left open;
d) the supply of generators, the exact delineation of this(these) market(s) can be left open;

In transmission and distribution:

e) High voltage products (>52kV);
f) Transformers;
g) Energy automation and – information;
h) Turnkey projects;
i) T&D services;

with a possible further delineation according to individual components; the exact scope of the relevant market being left open;

In rail:

j) Electrical traction for trams, metros, regional trains and locomotives;

k) Trams, metros, electrical and diesel powered regional trains and locomotives;

l) Catenary wire, the exact delineation of this(these) market(s) can be left open;

m) Rail power supply: substations, components for substations and servicing of rail power generation plants;

n) Level crossings;

Frequency inverters:

o) the exact delineation of this (these) market(s) can be left open;

In metallurgy:

p) Mechanical metallurgical plant building (limited to iron/steel or including non-ferrous metals) or mechanical metallurgical plant building per process step and metal, whereby the exact delineation of this(these) market(s) can be left open;

q) Electrical metallurgical plant building (as a whole) or electrical metallurgical plant building per process area, process step and metal, or Level 1 and 2 automation of metallurgical plants (as a whole or parts thereof, for entire metallurgy or per process step and metal), or Level 3 automation, whereby the exact delineation of this(these) market(s) can be left open;

r) Maintenance services for metallurgical plants;

s) Electrical plant building for non-metallurgical industrial plants, whereby the exact delineation of this(these) market(s) can be left open;

In LV-switchgear:

t) Fully fitted LV-switchboards, or, in the alternative, separate for the three components ACD, MCB and MCCB;

u) Components: busways, the exact delineation of this(these) market(s) can be left open;

v) Components: PLC [the exact delineation of this(these) market(s) can be left open] and load feeders;

In building technology and facility management:

w) Components for building control technology, safety technology separate for fire alarm and access/intruder control and electrical installation technology;

x) Systems: entire security systems and control systems;

y) Electrical and mechanical contracting, possibly also a market for general technical contractors;

z) Facility management, the exact delineation of this(these) market(s) can be left open;

In infrastructure and ropeways

aa) Traffic infrastructure: Street lighting, traffic lights, parking space control, the exact delineation of these markets can be left open;

bb) Traffic control, the exact delineation of this(these) market(s) can be left open;

cc) Water purification plants;

dd) Electrical equipment for ropeways, the exact delineation of these markets can be left open.

3. The Advisory Committee agrees with the Commission that for the purposes of assessing the present operation, the relevant geographic markets are as follows :

a) the markets for power generation are EEA-wide in scope;

b) the markets for T&D is EEA-wide in scope;

c) the markets for electrical traction are EEA-wide in scope;

d) the markets for trams, metros, electrical and diesel powered regional trains and locomotives are national where there is a strong national industry (here: Austria, Belgium, Germany, Poland, Czech Republic, Spain), and the EEA for the rest;

e) the market for catenary wire is national in scope;

f) the markets for rail power supply are assessed on a national basis but it can be left open whether they are national or EEA-wide;

g) the market for level crossings is assessed on a national basis;

h) the market for frequency inverters is EEA-wide in scope;

i) the markets for electrical and mechanical metallurgical plant building are at least EEA-wide in scope, the market(s) for maintenance services is/are EEA-wide in scope, and the market(s) for non-metallurgical plant building is/are national or EEA-wide in scope;

j) the markets for LV-switchgear and components are assessed on a national basis but it can be left open whether they are national or EEA-wide;

k) the markets for building technology and facility management are assessed on a national basis but it can be left open whether they are national or EEA-wide;

l) the markets for infrastructure and ropeways are assessed on a national basis but it can be left open whether they are national or EEA-wide.

4. The Advisory Committee agrees with the Commission that the notified concentration will significantly impede effective competition in a substantial part of the common market within the meaning of Article 2(3) of the Merger Regulation:

a) In the market for hydro power generation;

b) In the market for mechanical metallurgical plant building or in the markets for mechanical plant building for steelmaking and for continuous casting.

5. The Advisory Committee agrees with the Commission that the commitments submitted by the parties are sufficient to remove :
   a) the competitive concern in the market for hydro power generation resulting from the horizontal overlap of the concentration;
   b) the competitive concerns in the market(s) for metallurgical plant building resulting from horizontal effect of the concentration, in particular the privileged access of Siemens to strategic information of SMS Demag;

   and that, as a result, the concentration should be declared compatible with the Common Market.

6. The Advisory Committee asks the Commission to take into account all the other points raised during the discussion.

BELGIË/BELGIQUE	**ČESKÁ REPUBLIKA**	**DANMARK**	**DEUTSCHLAND**	**EESTI**
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---	---	T. HŐLZL	---	---
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