EN

Case No COMP/M.4297 - NOKIA / SIEMENS

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REGULATION (EC) No 139/2004
MERGER PROCEDURE

Article 6(1)(b) NON-OPPOSITION
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COMMISSION OF THE EUROPEAN COMMUNITIES

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 Where possible the information omitted has been replaced by ranges of figures or a general description.

PUBLIC VERSION

MERGER PROCEDURE
ARTICLE 6(1)(b) DECISION

To the notifying party

Dear Sir/Madam,

Subject: **Case No COMP/M.4297 – NOKIA/SIEMENS**
Notification of 5 October 2006 pursuant to Article 4 of Council Regulation No 139/2004[1]

1. On 05/10/2006, the Commission received a notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 by which the undertaking Nokia Corporation ("**Nokia**", Finland) acquires within the meaning of Article 3(1)(b) of the Council Regulation control of the undertaking Nokia Siemens Networks ("**NSN**"), a newly created company to which Nokia and Siemens Aktiengesellschaft ("**Siemens**", Germany) will contribute their worldwide mobile and fixed-line telecommunications network equipment businesses. Nokia and Siemens are hereinafter referred to as "**the Parties**".

2. After examination of the notification, the Commission has concluded that the notified operation falls within the scope of the Merger Regulation and does not raise serious doubts as to its compatibility with the common market and the EEA Agreement.

I. THE PARTIES

3. Nokia, a Finnish company listed on the New York, Frankfurt, Stockholm, and Helsinki stock exchanges, is active worldwide in mobile and fixed-line telecommunications.

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[1] OJ L 24, 29.1.2004 p. 1.

4. Siemens, a German company which is *inter alia* listed on the New York and Frankfurt stock exchanges, is active in the business areas: Information and Communication; Automation and Control; Power Generation and Power; Transportation; Medical Solutions; Lighting; and Financing and Real Estate.

II. THE OPERATION

5. Pursuant to the terms of a Framework Agreement signed on 19 June 2006, Nokia and Siemens will establish a newly formed Dutch limited liability company, NSN, to which each party will contribute its network equipment business (including relevant assets, intellectual property rights, management and personnel) in return for an equity stake[2]. Upon completion of the merger, Nokia's and Siemens' shareholders will each own 50 percent of the ordinary shares in NSN.

III. CONCENTRATION

6. NSN will be subject to sole control by Nokia. [...].

7. The operation therefore constitutes a concentration within the sense of Article 3(1)(b) of the Merger Regulation.

IV. COMMUNITY DIMENSION

8. The combined aggregate worldwide turnover of Nokia (€34,000 million) and the Siemens business contributed to NSN (€8,867 million) exceeded €5 000 million in 2005, and each of the undertakings had turnover in the Community of more than €250 million (Nokia [...], Siemens business [...]) without achieving more than two-thirds of their aggregate Community-wide turnover within one and the same Member State. The transaction is therefore a concentration with a Community dimension.

V. RELEVANT MARKETS

Relevant product markets

9. The transaction has an impact on various areas in the communication networks industry.

Mobile network equipment

10. The Parties are active in the supply of mobile network equipment, which according to the Parties has the following key components: (i) Radio Access Network ("**RAN**"), (ii) Core Network System ("**CNS**") and (iii) Network management and business management systems.

11. *RAN equipment* provides the radio access between the mobile handset and the mobile network via multiple base transceiver stations ("**BTS**" or "base stations") and a smaller number of base station controllers ("**BSC**"), to which the BTS are connected. In W-

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2 The transaction excludes Nokia's handset business (as well as Siemens' handset business, which was sold to BenQ in 2005), which will continue to be run independently by Nokia.

CDMA-based systems (also known as UMTS), the equivalent of the BTS and BSC are called "node B"and Radio Network Controller ("RNC"), respectively[3].

12. *CNS equipment* manages information flows within the mobile network and includes circuit-switching equipment[4] for voice traffic and packet-switching equipment for data traffic (as well as associated databases (*e.g.*, information on subscribers or roaming visitors)). The main packet-switched core elements are the Serving GPRS Support Node ("**SGSN**") and Gateway GPRS Support Node ("**GGSN**"). The GGSN is the interface between the GPRS (data) network and other networks, such as the Internet, while the SGSN performs the packet-switching, mobility and session management, and related functions within the GPRS network.

13. *Network management and business management systems* software supports carriers' technical and commercial needs. Software includes operations support systems ("**OSS**," supporting network management, *e.g.*, faults identification, network configuration, performance management) and business support systems ("**BSS**," supporting business management, *e.g.*, billing, charging, and subscriber management).

14. Technological advancement in mobile network equipment has been grouped into "generations," with each generation increasing both transmission capacity and technological capability. Equipment generations currently in use can be classified into 2G and 3G products. Today, 2G is the most common generation of mobile technology in place in much of the world, including the EEA. 2G standards include: GSM, IS-95 (cdmaOne), iDEN, D-AMPS and PDC. GSM is by far the most popular global standard for mobile phones used by approximately 80% of total subscribers (the proportion is even higher in the EEA[5]). IS-95 is the first digital cellular standard pioneered by Qualcomm and used in the Americas and part of Asia. I-DEN is operated in the US, Argentina, Brazil, Mexico and Peru. D-AMPS is used in the US and Canada but being phased out, whereas PDC is used exclusively in Japan.

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3 Node Bs are very similar in function to a GSM BTS, but there are certain technical differences. W-CDMA cells can overlap and still use the same frequency, even if controlled by the same RNC, which was not possible in GSM. Because W-CDMA uses a higher frequency band than GSM, node Bs usually have a smaller coverage area than BTSs, meaning more of them are needed to cover the same area. RNC. In W-CDMA networks, the RNC has similar functions to the BSC in GSM networks plus some additional functions that are required in the W-CDMA radio environment (e.g., support of specific handover mechanism, code allocation, fast power control).

4 The Circuit-switched core uses circuit-switching to connect voice calls from mobile handsets to their destinations. The most important component of the circuit-switched core is the Mobile Switching Center ("MSC"). The MSC processes voice signals, faxes, and text messages. It receives signals transmitted from several BSCs/RNCs and then routes these signals to their proper destinations, which may involve switching to another network. The MSC is connected to various databases. These include the: (1) Home Location Register ("HLR"), which stores subscriber information that corresponds to the subscriber's Subscriber Identity Module ("SIM") card (2) Visitor Location Register ("VLR"), which stores temporary information on, e.g., visiting subscribers; (3) Authentication Center ("AUC"), which authenticates subscriber identity to, e.g., prevent fraud; and (4) Equipment Identity Register ("EIR"), which contains unique identifiers for each mobile handset. These databases are tightly coupled with the MSC. All of these elements are generally supplied with the MSC.

5 It is estimated to be around 95%.

15. 2.5G systems are essentially overlays on 2G systems and do not fundamentally change their structure[6]. The most well-known are: General Packet Radio Service ("**GPRS**"), Enhanced Data rates for GSM Evolution ("**EDGE**") and CDMA2000 1x (deployed in the United States, Canada, Mexico and India). In addition, new technologies with greater performance than current 2G and 2.5G products have emerged, *i.e.*, 3G equipment, such as W-CDMA (also known as Universal Mobile Telecommunication System, "**UMTS**") (EEA), CDMA 1x EV-DO/CDMA 1x EV-DV (US, Canada, South Korea, Mexico, India, Israel, Australia, Venezuela and China, and to a very limited extent also the EEA: Poland, Portugal, Czech Republic, with trials in Norway, Finland and Latvia) and TD-SCDMA (China). Finally, mobile technologies and equipment have begun to transition beyond 3G, to 4th generation or 4G technology, but 4G specifications have not yet been fully standardised. The most notable include: WiFI, WiMAX, Flash OFDM, TD-CDMA and LTE.

16. The Parties argue that for the purpose of defining a relevant market it is appropriate to include not only equipment supporting GSM/GPRS/EDGE and W-CDMA technologies of the kind supplied by the Parties, but also equipment supporting other mobile standards e.g., CDMA2000 1x EV-DO, cdmaOne and CDMA 2000 1x. According to the Parties, once an operator has chosen equipment supporting a particular mobile technology, it is unlikely for an operator to switch to another technology during the products useful life. However, for new operator licenses, mobile operators in principle have a choice between the two main groupings of wireless infrastructure. The Parties consider in this context that basic mobile network equipment is essentially the same in both cases and that prices are broadly comparable. Moreover, most vendors are capable of supplying both products bases on either group of mobile standards. Hence, the Parties consider there to be strong supply-side substitution and, in those cases that involve new equipment roll-outs or new operator licenses, also demand-side substitution.

17. With reference to Commission precedents[7], the Parties furthermore contend that there are strong arguments to define an overall global mobile network equipment market, encompassing RAN, CNS, and associated software (OSS/BSS) - without distinguishing between mobile and fixed-line OSS. The Parties submit that this segmentation reflects the fact that interfaces between RAN, CNS and certain OSS/BSS of different vendors are generally open and mutually compatible, as would be evidenced by customers engaging in multiple sourcing with different vendors.

18. In any event, based on certain interoperability issues, the Parties submit that narrower sub-segments could be identified, i.e. distinct markets for (i) GSM/GPRS/EDGE RAN, W-CDMA RAN, and other RAN technologies; (ii) subdividing CNS into i) circuit-based and ii) packet-based switching (and possibly segmenting packet-based switching further between SGSN and GGSN); and distinct markets for mobile OSS and BSS products. The Parties consider, however, that there is no need to determine the precise scope of the relevant product market in the area of mobile network equipment since the transaction does not raise competitive concerns, even on the basis of the narrowest market definition considered.

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6 "2.5G" is not a mobile standard, but is a term used for data transmission upgrades for 2G networks.

7 Case IV/M.468 – Siemens/Italtel, paragraph 16; Case IV/M.651 – AT&T/Philips, sub V.A.7; Case COMP/M.2851 – Intracom/Siemens/STI, paragraph 22.

Market Investigation

19. The market investigation has revealed that the interchangeability of mobile network products is not equivalent within each product category. Therefore, a distinction between RAN elements and CNS elements has to be considered.

20. Within a RAN system, be it a 2G network or a 3G network, products have to be bought from the same vendor due to the lack of standardisation between BTS/nodeB and BSC/RNC from different vendors respectively. This constraint is limited to each geographic area in which a network is established (one BSC or RNC connecting to several BTS or nodeB respectively). Within such an area, BTS and BSC in a 2G RAN and the node B and the RNC in a 3G RAN have to be bought from the same vendor to maintain the operability of the network. Normally RAN systems are typically used for one generation only. There are however products available by some vendors where multiple technologies can be managed in the same node (for example, 2G/3G combined node). In any event, operators purchase both types of RAN systems. As regards CNS, 2G equipment can be used as a basis for 3G equipment, with some limited upgrading, if need be.

21. Within a CNS system, the extent of standardisation of interfaces connecting the different products to each other is much higher compared to the RAN. Even though this leads to a higher degree of interchangeability of products in theory, the market investigation showed that the existence of a high number of different vendors for the CNS is inconvenient or even economically unjustifiable for the network operator in some cases, since a high number of different vendors is likely to increase maintenance, operation and integration issues within the network. However, this does not mean that network operators only purchase from one vendor. Several customers replied that they purchase even within the packet and the circuit core multiple products from different vendors.

22. Furthermore, the market investigation showed that within a subsegment of the CNS, the circuit core, it appears to be possible to purchase some elements from different vendors whereas some elements of the circuit core seem to be linked to each other and therefore have to be purchased from the same vendor. For example, customers replied that the MSC is linked to the VLR as well as to the AUC. On the other hand, the HLR and the EIR seem to be rather independent and are therefore likely to be purchased from different vendors.

23. Finally, between RAN and CNS, there is full interoperability due to the standardisation that has been implemented on the interfaces dealing with the communication between RAN and CNS. Therefore, the purchase of RAN and CNS equipment are entirely independent of each other.

24. Concerning OSS and BSS, the market investigation has revealed that OSS and BSS are different in terms of interchangeability. Some customers indicated that the OSS is more dependent on the network system than the BSS and that the OSS is therefore likely to be purchased from the same vendor that supplied the network products. However, other customers consider OSS and BSS to be completely independent from the network and from each other. Anyway, most customers agreed that BSS and OSS can be purchased from different vendors and are therefore purchased separately.

25. Furthermore, OSS and BSS are different in terms of the usability for different network types. The market investigation has shown that OSS usually cannot be used for both

fixed and mobile networks whereas BSS could indeed be used to support both fixed and mobile networks. However, some customers indicated that a costly customisation of the BSS might be necessary to use the BSS for both fixed and mobile networks.

CDMA vs. GSM/GPRS/EDGE / W-CDMA products

26. As stated earlier, the Parties submit that GSM/GPRS/EDGE as 2nd Generation mobile telephony technology, W-CDMA as 3rd Generation mobile telephony technology as well as 2G CDMA 2000 1x and 3G CDMA 1x EVDO and CDMA 1x EV-DV technologies[8] would belong to the same relevant product market. The investigation has confirmed that while GSM/GPRS/EDGE and W-CDMA is widely installed in the EEA, i.e. about 98% of the subscribers in the EEA use one of these two standards, both CDMA standards are hardly found in the EEA. The 2G CDMA standard is used in the Americas and in other world regions but it is virtually absent in the EEA, whereas the CDMA 1x standard as being a 3rd Generation standard has been installed to a small extent in Portugal, Czech Republic and in Poland[9].

27. The equipment of CDMA technology is entirely different from the technology of GSM/GPRS/EDGE or W-CDMA. A network operator, who has decided for one particular standard, is unable to mix equipment from both technologies in its network. Any replacement of the technology would mean to rebuild the entire mobile telephony infrastructure for the given network.

28. Furthermore, the license requirements under which the operator can use the radio frequencies largely determine the technology standard to use. It therefore appears highly unlikely that any CDMA technology would further establish in the EEA given the fact the GSM/GPRS/EDGE and W-CDMA standard is already in overwhelmingly wide use. At present, no further frequency spectrum appears to be available over the next years which could potentially be used for any new technology[10]. Moreover, a mix of mobile technology standards would also mean that consumers would have to purchase new mobile handsets that master multiple standards in a given area in order to use the mobile phone anywhere. Currently, however, handsets sold in the EEA support generally the GSM/GPRS/EDGE and/or W-CDMA standard with few exceptions, mainly handsets that are designed to attract the international business travellers. For the above reasons, it can be concluded that the relevant product market comprises the GSM/GPRS/EDGE and W-CDMA standards and that both CDMA standards can be excluded from this market for the purpose of the assessment in the present case.

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8 It is worth mentioning that W-CDMA uses the multiplexing technique of using codes to allow multiple connections when occupying the same transmission channel. However this technique should not be confused with 2G CDMA and 3G CDMA family of standards since they are entirely different.

9 Trials of this technology were done in Norway, Finland and Latvia.

10 The frequency spectrums for GSM and W-CDMA are sold to network operators. Freeing further frequency spectrum is in discussion in various Member States and at European level but no firm conclusions have been achieved yet.

Conclusion on mobile network equipment

29. In the light of the above, the Commission has assessed the effects of the transaction under all possible alternative market definitions where the combined market share is above 15%: i) overall mobile network equipment; ii) all RAN; iii) all CNS; also, possible segmentations within RAN and CNS equipment are addressed; iv) GSM/GPRS/EDGE RAN, v) W-CDMA RAN, vi) Circuit-core; vii) Packet-core; viii) SGSN, ix) GGSN x) mobile OSS. In any event, for the purpose of the present case it is not necessary to delineate the precise scope of the relevant product markets as in all alternative market definitions considered, the assessment would not change.

Fixed-line network equipment

30. According to the Parties, a public fixed-line telecommunication network comprises the following key infrastructure elements: (i) network access equipment for the local loop, (ii) core network equipment and applications (including public switching) and (iii) transport and IP networking equipment.

31. *Network access equipment*: Access networks connect subscribers to the core-fixed-line network and all of the services provided by the fixed-line operator. Access networks can be established using a variety of technologies, the major technologies being: (a) narrowband access; (b) DSL broadband access; (c) fiber-based (broadband) network access; and (d) wireless (broadband) network access. Relative to their broadband counterparts, narrowband access networks support a lower bit rate of information transfer over ordinary copper telephone lines. The Commission has previously considered dividing the access network market into sub-markets for wireline products (including all fibre, copper, and coaxial cable access network systems) and wireless access products, although the precise market definition was left open[11]. The Commission further considered sub-markets for fibre optic access and copper access network systems[12]. Moreover, the Commission has recognized a distinct product market for DSL access network equipment determining that the different DSL types are widely substitutable[13]. The Commission also discussed whether ATM-based and IP/Ethernet-based DSLAM equipment constitutes a single market for DSL access network equipment or whether a further segmentation was required. However, it was ultimately left open whether the market needed to be further segmented on the basis of the technology used (*i.e.*, ATM vs. IP/Ethernet)[14].

32. According to the Parties, wireline access network equipment can be distinguished between products that use the existing copper infrastructure and those that require the laying of fibre cable. The expense of laying optical fibre creates an economic divide that prevents fibre-based access networks from being fully interchangeable with copper-based systems. Within technologies that utilize the existing copper infrastructure, the Parties consider that the various products are substitutable. The Parties submit, however, that there is no need to determine the precise scope of the relevant product market, since the transaction does not raise competition concerns on

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11 Intracom/Siemens/STI, Case COMP/M.2851, para.20 *et seq*.; Charterhouse/CDC/Télédiffusion de France, Case COMP/M.2925, para. 23 *et seq*; Alcatel/Lucent Technologies, Case COMP/M.4214, paragraph 23.

12 Ericsson/Raychem, Case IV/M.519, paragraph 14.

13 Alcatel/Newbridge Networks, Case COMP/M.1908, paragraph.8.

14 Ericsson/Marconi, Case COMP/M.4003, paragraph 11.

any reasonably conceivable delineation, *i.e.,* even considering distinct markets for narrowband access equipment, DSL access network equipment (DSLAMs, with a possible sub-delineation between ATM and IP technologies), Passive Optical Network (broadband) access equipment and wireless (broadband) access technologies.

33. *Core network equipment and applications*: In previous cases the Commission discussed public switching (Time Division Multiplexing ("TDM")) TDM switches and softswitch solutions), but did not finally determine whether the relevant product market comprised both technologies, or whether each constituted a distinct market[15]. Also, the Commission suggested that there might be a distinct market for data network switching equipment, although the exact product market definition was left open[16].

34. The Parties submit that there is no need to determine the precise scope of the relevant product market in the area of public switching in the present case, since the transaction does not raise competitive concerns on any reasonably conceivable delineation, even taking into account the narrowest market definition considered, i.e. considering distinct markets for TDM switches and softswitch solutions.

35. *Transport and IP networking equipment*: In its past practice the Commission, besides optical network products (wireline)[17], distinguished between: (i) Point-to-point ("**PTP**") microwave radio transmission; and (ii) Point-to-multipoint ("**PMP**") microwave radio transmission equipment[18]. Moreover, PTP microwave radio transmission equipment varies according to its function for long-haul and short-haul transmission. However, the exact definition of the relevant market was left open.[19]

36. While the Parties believe that there may be two relevant product markets in the area of microwave radio transmission equipment, *i.e.*, PTP microwave radio transmission equipment and PMP microwave radio transmission equipment, they submit that there is no need to determine the precise scope of the relevant product market, since the transaction does not raise competition concerns on any reasonably conceivable delineation, even taking into account the narrowest conceivable market definition, *i.e.*; considering distinct markets for short-haul and long-haul microwave transmission equipment.

Market Investigation

37. The market investigation showed that competitors and customers generally consider a subdivision of fixed-line network equipment in line with the segmentation as set out above to be appropriate, rather than delineating an overall fixed-line network equipment market.

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15 Alcatel/Lucent Technologies, Case COMP/M.4214, paragraph 35; Ericsson/Marconi, Case COMP/M.4003, paragraph 12.

16 Alcatel/Newbridge Networks, Case COMP/M.1908, paragraph 9.

17 Ericsson/Marconi, Case COMP/M.4003, paragraph 13; Alcatel/Lucent Technologies, Case COMP/M.4214, paragraph 13-14 (Nokia is not active in optical networks and therefore the operation does not result in any overlapping activities in this respect).

18 Ericsson/Marconi, Case COMP/M.4003, paragraphs 8 and 9; AT&T/Philips, Case COMP/M.651, V.A.3. and 6.

19 Ericsson/Marconi, Case COMP/M.4003, paragraphs 8-10.

38. With regard to *network access equipment*, customers consider, in line with the view of the Parties, that at present fibre and copper-based wirelines access network equipment are not substitutable due to differing technical performances (*e.g.,* use of different ranges of capacities per user), features and customer requirements (*e.g.,* copper is substitutable for the residential segment but not for the business/corporate segment). In the future, however, some customers maintain that they may constitute a single market because the price differential between fibre and copper is reducing all the time and because, once initial infrastructure investment have been performed, the equipment should concern similar technologies and address the same customer needs.

39. With regard to *core network equipment and applications*, , most competitors and customers consider that until the market has migrated towards IP-based network solutions and the standardisation process of IP-based Next Generation Networks (NGNs) is sufficiently completed, separate markets will exist between TDM switches and softswitches, mainly on the grounds of functionality (*e.g.,* TDM switches typically host the subscriber data and service the subscriber lines, whilst softswitches host subscriber data without serving subscriber lines), technology, and user confidence (*e.g.,* regulatory and security reasons).

40. With regard to *transport and IP networking equipment*, most competitors and customers agree with the delineation as suggested by the Parties, *i.e.*, that PTP and PMP microwave radio transmission constitute separate markets. Although vendors typically supply all types of transmission and IP networking equipment, PTP and PMP microwave radio transmission are considered to differ with respect to their technical performance and functionality, *e.g.,* PTP is mainly used for transmission of telecom services within the operator's network and PMP for end-user customers' access. Furthermore, PTP systems generally have greater bandwidth capability that is not shared but have higher cost whereas systems based on PMP have shared bandwidth capability offering shared services and can in certain markets offer lower cost transport capability.

Conclusion on fixed-line network equipment

41. In the light of the above, the Commission has assessed the effects of the transaction under all possible alternative market definitions where the combined market share is above 15%. In particular, as regards Network Access equipment: i) narrowband access equipment. Within broadband access equipment: ii) all DSLAMs; iii) ATM DSLAMs. As regards Core Network equipment: iv) TDM switches; v) softswitches. As regards Microwave Radio Transmission: vi) all PTP; vii) short-haul PTP. In any event, for the purpose of the present case it is not necessary to delineate the precise scope of the relevant product markets as in all alternative market definitions considered, the assessment would not change.

Associated mobile and fixed-line services

42. The Parties supply associated mobile and fixed-line telecommunications services. According to the Parties, these services are closely connected to the supply of network equipment. They can cover a number of different functions: (i) deployment, delivery and installation services[20]; (ii) maintenance and care services[21]; (iii) managed services[22]

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20 Deployment, delivery and installation services typically comprise the support services that are required from the preliminary planning phase to the activation of the network.

and (iv) other professional services, including personnel training, consulting and security.

43. The Parties submit that as deployment, delivery and installation services are generally included in the invitation to tender and are offered with network infrastructure, there is no distinct market for the provision of these services. Maintenance and care services are also generally included in the invitation to tender and are offered with network infrastructure; hence the parties are of the opinion that there is no distinct market for the provision of these services either. According to the Parties, managed services are often provided separately from the supply of infrastructure equipment and therefore a distinct relevant market would exist for the provision of those services. With regard to other professional services, the Parties submit that they are provided by a number of non-telecom companies and are generic to a number of different sectors. There is therefore no distinct market for the provision of fixed-line and/or mobile network other professional services in the view of the Parties.

44. In the course of its market investigation the Commission received a variety of opinions as to the appropriate product market definition. There was a tendency to suggest that (i) deployment, delivery and installation services and (ii) maintenance and care services form part of the market for the supply of equipment as argued by the Parties. The view has been raised that equipment manufacturers do not offer the same guarantees with regard to the equipment and system if the services are not provided by or through them. However, some respondents opined that these markets are also open markets. Vendors often use sub-contractors which are also commonly used by the operators. Some argued that a certain volume of business is required for these markets to be considered as separate markets. Also, there is a certain development for vendors to build capabilities to provide services on other vendors' equipment.

45. In line with the view of the Parties, a significant proportion of respondents opined that (iii) managed services are often delivered separately by telecom players which have a global offer and/or specialists which are not necessarily telecom companies and that (iv) other professional services are purchased on the open market. Most respondents opined that there are no distinct markets for the provision of services to fixed-line or mobile networks, nor are there distinct markets depending on the part of the network concerned (*e.g.,* RAN, transport/backhaul/CNS), the generation of technology applied (*e.g.*, GSM/UMTS/IMS-NGN networks) nor for different standards (*e.g.,* CDMA/CDMA-2000 or GSM/W-CDMA networks).

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21 Maintenance and care services typically comprise preventive and reactive services designed to maintain consistent network functionality and related software and hardware services.

22 Managed services allow an operator to outsource certain tasks to the service provider, including network related technical activities. Managed services may include: technical management, hosting: the delivery to the operator of a technical functionality and/or Build, Operate, Transfer ("**BOT**"): the construction of a network for an operator, followed by a period of network operation by the service provider, and then an optional handover to the operator.

Conclusion on associated mobile and fixed line services

46. In the light of the above, the Commission has assessed the effects of the transaction under all possible alternative market definitions where the combined market share is above 15%. In particular: i) all mobile and fixed services; ii) all mobile services only. Within mobile services: iii) deployment, delivery & installation services; iv) maintenance and care services. In any event, for the purpose of the present case it is not necessary to delineate the precise scope of the relevant product markets as in all alternative market definitions considered, the assessment would not change.

Relevant geographic markets

Mobile network equipment

47. In line with the Commission's decisional practice[23], the Parties submit that the scope of the relevant mobile network equipment market(s) is (are) global, or at least EEA-wide. This would be borne out by various factors: (i) international standardization of mobile telecommunications network equipment (*e.g.*, European Telecommunications Standards Institute, "**ETSI**"; Institute of Electrical and Electronics Engineers, "**IEEE**"; 3rd Generation Partnership Program, "**3GPP**"; and **3GPP2**); (ii) vendor and industry interoperability initiatives through Interoperability Testing Centers ("**IOTs**"); (iii) contracts would be competed for globally: there would no longer exist any concept of "home" markets or regions; (iv) worldwide shipping and limited transport costs; (v) limited regional variations in cost and price and (vi) liberalised downstream service markets leading to open upstream equipment markets.

48. The Commission's market investigation has evidenced that that most competitors and customers consider the market for mobile network equipment to be at least EEA-wide if not global along the line submitted by the Parties. For the purpose of this decision the scope of the relevant markets may be left open as the assessment would not be different whether the scope of the market is taken to be EEA-wide or world-wide.

Fixed-line network equipment

49. The Commission has confirmed in previous cases that the markets for telecommunications equipment were at least EEA-wide, if not worldwide[24]. The market(s) for data networking equipment was/were considered to be at least EEA-wide, and possibly worldwide[25].

50. The Parties contend that the geographic scope of the market for all fixed-line network equipment is world-wide. This would be borne out by (i) the liberalisation of downstream markets for telecommunications services, (ii) the requirement to meet internationally established standards to ensure compatibility, (iii) the low transport

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23 E.g. Siemens/Italtel, Case IV/M.468; AT&T/Philips, Case IV/M.651; and Ericsson/Marconi, Case M.4003.

24 Intracom/Siemens/STI, Case COMP/M.2851, paragraph 26 *et seq,* Ericsson/Marconi, Case COMP/M.4003, paragraph 15; Alcatel/Lucent Technologies, Case COMP/M.4214, paragraph 36 *et seq*.

25 Alcatel/Lucent Technologies, Case COMP/M.4214, paragraph 36 *et seq*; Belgacom/Telindus, Case COMP/M.3995, paragraph 19; EADS, Case COMP/M.1745, paragraphs 39-41.

costs, (iv) the absence of significant price differences between different global regions and (v) the increased importance of global tendering.

51. The Commission's market investigation has evidenced that that most competitors and customers consider the market for *fixed-line network equipment* to be at least EEA-wide if not global. While some elements of localisation may occur, *e.g.*, for some operators local support is a crucial factor where EEA suppliers have an advantage, most vendors are active globally, products are produced on globally agreed standards, operators purchase equipment on a worldwide basis through sophisticated tendering processes and there are no significant price differences worldwide. Alternative markets considered are *e.g.*, the US, Japan and the EEA where the standard is to some extent different, or regional geographic markets for PTP and PMP equipment due to the applicable regulatory frameworks.

Associated mobile and fixed-line services

52. The Parties submit that the scope of the relevant geographic market for associated services is global or at least EEA-wide. This would be borne out by (i) service providers offering the same services throughout the world; (ii) international standards; (iii) local presence not being imperative (arguing that while the provision of services in the past required a local service provider's presence, today's improvements in technology largely permit the provision of services on a remote basis) and (iv) pricing being similar on a global basis.

53. The Commission's market investigation has evidenced that that most competitors and customers consider the market for *associated mobile and fixed-line services* to be at least EEA-wide if not global, for the reasons given by the Parties (see above). Contrary to the view of the Parties, however, local presence still appears be crucial, in particular when services must be done on site and to ensure quality. According to the market investigation, local presence can be provided mainly through own facilities, or local partners but also across national borders (disadvantaging vendors without EEA or regional presence), provided that suppliers' response time in case of problem remain acceptable.

Conclusion on geographic market definition

54. For the purpose of this decision it is not necessary to decide on the exact geographic market definition (EEA or world-wide), given that in any case the concentration will not significantly impede effective competition in the common market or in a substantial part of it.

VI. COMPETITIVE ASSESSMENT

A. Market shares 2005

55. The tables below show the Parties' shares of the markets in those areas of telecommunications network equipment where their activities overlap and where the transaction would give rise to affected markets within the EEA. As, according to the Parties, analyst reports typically cover the EEA as part of Europe, the Middle East and Africa (jointly "**EMEA**") or Western Europe, EEA-wide sales and market shares have

been calculated on the basis of the Parties' best estimates. In virtually all areas considered, the Parties' combined shares are not higher on a global scale[26].

Mobile network equipment

Table 1

	EEA / in terms of value (%)									
Companies	*All Equipment*	*RAN*			*CNS*					*Mobile OSS*
		All	GSM/ GPRS/ EDGE	W-CDMA	All	Circuit-switched	Packet-switched			
							All	SGSN	GGSN	
Nokia	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[0-10]	[0-10]
Siemens	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[10-20]	[0-10]
Combined	**[20-30]**	**[30-40**	**[30-40]**	**[30-40]**	**[30-40]**	**[30-40]**	**[20-30]**	**[20-30]**	**[20-30]**	**[10-20]**
Ericsson	[20-30]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[30-40]	[40-50]	[40-50]	[0-10]
Alcatel /Lucent	[0-10]	[0-10]	[10-20]	[0-10]	[10-20]	[10-20]	[0-10]	[0-10]	[0-10]	[0-10]
Motorola	[0-10]	[0-10]	[0-10]	-	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]
Nortel	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]
NEC	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]
Huawei	[0-10]	[0-10]	[0-10]	-	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]
Others	[20-30]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[10-20]	[10-20]	[0-10]	[60-70]

[26] The exceptions were GGSN and softswitches. The Parties' combined 2005 global market share for GGSN was higher than their share in the EEA, i.e., [30-40]% and [20-30]%, respectively. Similarly, their 2005 global market share for softswitches amounted to [20-30]%, compared to [10-20]% EEA-wide.

Fixed-line network equipment

Table 2

	EEA / in terms of value (%)						
	Network Access Equipment			*Core network equipment*		*Microwave radio transmission*	
	Narrowband	Broadband		TDM switches	Soft switches	All PTP	Short-haul PTP
		All DSLAMS	ATM DSLAMS				
Nokia	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]	[0-10]
Siemens	[10-20]	[10-20]	[20-30]	[30-40]	[10-20]	[10-20]	[10-20]
Combined	**[10-20]**	**[20-30]**	**[20-30]**	**[30-40]**	**[10-20]**	**[20-30]**	**[20-30]**
Ericsson	[10-20]	[0-10]	[0-10]	[10-20]	[0-10]	[20-30]	[30-40]
Alcatel/Lucent	[0-10]	[40-50]	[50-60]	[20-30]	[0-10]	[10-20]	[10-20]
Huawei	[10-20]	[0-10]	[0-10]	[0-10]	[0-10]	-	-
Nortel	[10-20]	-	-	[10-20]	[10-20]	-	-
NEC	-	[0-10]	[0-10]	[0-10]	[0-10]	[10-20]	[10-20]
Italtel	-	-	-	-	[10-20]	-	-
Cisco systems	-	-	-	-	[0-10]	-	-
ECI	-	-	[0-10]	-	-	-	-
Others	[20-30]	[10-20]	[0-10]	[0-10]	[10-20]	[20-30]	[10-20]

Associated mobile and fixed-line services

Table 3

	EEA / in terms of value (%)			
Companies	*All Services*	*Mobile Services*		
		All	Deployment, Delivery & Installation	Maintenance and Care
Nokia	[0-10]	[10-20]	[0-10]	[10-20]
Siemens	[0-10]	[0-10]	[10-20]	[0-10]
Combined	**[10-15]**	**[20-30]**	**[20-30]**	**[20-30]**
Ericsson	[10-20]	[10-20]	[20-30]	[20-30]
Alcatel/Lucent	[0-10]	[0-10]	[0-10]	[0-10]
Motorola	[0-10]	[0-10]	[0-10]	[0-10]
Nortel	[0-10]	[0-10]	[0-10]	[0-10]
NEC	[0-10]	[0-10]	[0-10]	[0-10]
Huawei	[0-10]	[0-10]	[0-10]	[0-10]
Others	[60-70]	[40-50]	[30-40]	[40-50]

B. Assessment of affected markets

Mobile Network equipment

56. *Mobile Network Equipment*: On an overall market for all mobile network equipment, post-merger, the Parties will rank number two in the EEA with a combined market share of [20-30]% (Nokia [10-20]%; Siemens [10-20]%), closely after Ericsson ([20-30]%).

57. *RAN equipment*: On the basis of an overall market for all RAN equipment, the Parties' combined EEA-wide market share amounts to [30-40]% in terms of value, Siemens representing an incremental market share of 15%. On a product-by-product basis, as presented by the Parties, their position would largely be the same in the supply of GSM/GPRS/EDGE RAN and W-CDMA RAN with a combined market share of [30-40]% (Nokia [10-20]% and Siemens [10-20]%) and [30-40]% (Nokia [10-20]% and Siemens [10-20]%), respectively.

58. *CNS equipment*: On the basis of an overall market for CNS equipment, the Parties combined EEA-wide market share amounts to [30-40]% in terms of value, Nokia representing an incremental market share of [10-20]%. On a product-by-product basis, as presented by the Parties, their position would largely be the same in the supply of circuit-switched and packet-switched core with a combined market share of [30-40]% (Nokia [10-20]% and Siemens [10-20]%) and [20-30]% (Nokia [10-20]% and Siemens [10-20]%), respectively and on the sub-markets for SGSN and GGSN with a combined market share of [20-30]% (Nokia [10-20]%; Siemens [10-20]%) and [20-30]% (Nokia [0-10]%; Siemens [10-20]%), respectively.

59. *Network management and business management* systems: The Parties combined EEA-wide market share of sales of mobile OSS amounts to [10-20]%, Siemens representing an incremental market share of [0-10]%.

Non-coordinated effects

Interoperability issues in mobile network equipment

60. As regards possible concerns stemming from difficulties that customers would face in switching/swapping suppliers due to insufficient/lack of interoperability between network equipment from different vendors (especially as regards RAN elements, i.e., essentially BTS and BSC, Node B and RCN), it should be observed that it is fairly common for carriers to have various suppliers of the same RAN generation, e.g., two or more 3G suppliers in different regions of their network. This does not necessarily raise interoperability issues, since interfacing occurs at the level of the CNS. Interfaces between the RAN and handsets on the one hand and the CNS on the other are open.

61. Furthermore, while it appears that customers (especially the larger ones) have the tendency to adopt mainly dual supply arrangements, they carry out the major replacements or upgrades/extensions within their network on a step by step basis and not necessarily within the same timing for their entire network. These network extensions (especially when they are important in technical scope and significant in value) often represent a viable inflection point for attracting new competition and thereby overcoming possible incumbency effects. This is not uncommon having regard to the fast moving technological nature of the sector.

62. In this respect, it also appears that in the past other vendors may have been able to swap the incumbent' equipment. In these circumstances, the swapping vendor may typically cover (part of) the costs entailed by the swap[27]. For example, Nokia reported instances in which its network equipment has been swapped out by rivals. In 2004, [...] swapped

27 Nokia stated to have conducted approximately [60-90] 2G network swaps in [30-60] countries in the last [0-20] years, of which [40-70] have included RAN replacements.

out Nokia RAN equipment from [...] network. Nokia RAN equipment has also been swapped out by [...] in [...] network. [...] swapped out Nokia 2G RAN equipment in 2004 from [...] network. In any event, customers made no substantial complaints about any possible increased difficulty in switching RAN equipment suppliers due to the merger.

63. Interoperability issues are far less significant as regards Core Network products as standardization on the CNS side is more extensive than in RAN. It is true some customers would be more inclined to choose the same vendor for these (this group of) products to simplify interoperability and to reduce operational costs, which otherwise they would have to bear to ensure integration/ interconnection of the various elements. Nevertheless, it easily happens that operators may have two or more vendors for their CNS equipment[28].

64. The vast majority of investments within the CNS are for circuit-core (*i.e.*, MSC, HLR) and packet-core (*i.e.*, SGSN, GGSN). It is often the case that operators select different vendors for these two domains. It is also possible (and it happens) that, within circuit-core, operators have niche vendors for certain types of equipment (e.g. EIR, HLR). In particular it appears to be possible to purchase some elements of the circuit-core from different vendors. MSC appears to be linked to the VLR as well as to the AUC. On the other hand, the HLR and the EIR seem to be rather independent and are therefore likely to be purchased from different vendors.

65. As with the RAN, CNS vendor equipment swaps may take place. Major swaps are typically undertaken in conjunction with technology discontinuity (*e.g.*, introduction of W-CDMA) or network modernization, which, as it is for RAN, often represent a viable inflection point for attracting new competition and thereby overcoming possible incumbency effects. In any event, customers made no substantial complaints about any possible increased difficulty in switching CNS equipment suppliers due to the merger.

Mobile network equipment vendors

66. In view of the above described switching limitations, some respondents have voiced the fear that post-merger various operators could in the EEA be left with two alternative viable competitors, Ericsson and Nokia/Siemens. Those operators that pre-merger selected Siemens or Nokia together with Ericsson would no longer have a third party vendor available, as other competitors would not really be credible alternatives, given the barriers to entry, switching costs, incumbency and lock-in effect (which would occur for the provision of equipment, services, upgrades, etc. from the incumbent suppliers at least for the lifecycle of a mobile generation, e.g. GSM).

67. For some operators who pre-merger selected Nokia and Siemens, the post-merger situation would allegedly even be of being left with a single vendor. The possibility for customers to add another third party vendor would not be credible, as third party equipment would not be fully interoperable with the installed base.

68. Based on the estimated shares of sales provided by themselves (see above), the Parties consider that post-merger (besides the merged entity with a combined EEA overall network equipment share of [20-30]%) there will remain a number of competing

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28 For example, this happens for [CONFIDENTIAL: Identity of customers]

suppliers of mobile network equipment with Ericsson as the market leader with an EEA-wide market share of [20-30]% in an overall mobile network equipment market (excluding associated services), with similar market shares in the various sub-segments: namely all RAN: [30-40]%, GSM/GPRS/EDGE RAN: [30-40]%, W-CDMA RAN: [30-40]%, all CNS: [30-40]% and mobile OSS: [0-10]%. According to the Parties, other suppliers would also be active in the EEA. Their EEA-wide shares of all mobile network equipment sales - which would also be representative of their shares in the various sub-segments - would be as follows: Alcatel/Lucent [0-10]%, Nortel [0-10]%, NEC [0-10]%, Huawei and Motorola [0-10]% each, with a number of other suppliers accounting for the remaining [20-30]% of EEA sales.

69. In any event, regardless of market share, bearing in mind the increasing concentration of the supply-side which this industry is witnessing[29], the Parties contend that at least four major RAN and CNS suppliers (*i.e.*, Huawei/Motorola, Alcatel/Lucent (with Nortel for UMTS RAN business), Ericsson/Marconi, and Nokia/Siemens) will continue to compete aggressively in the EEA post-merger. The presence of these competitors would be sufficient to ensure effective competition, since EEA (and other) operators typically pursue single or dual source supply arrangements. The Parties have stated that carriers consider that two or three bidders are sufficient to ensure effective competition for a sole supply contract, while three to four bidders are usually sufficient when the customer considers it important to have dual suppliers. Customers do not appear necessarily interested in adding extra bidders unless essential, since this could increase procurement costs and time.

70. The Commission has assessed the Parties' contentions on the basis of the overall results of the market investigation; this involved the responses of competitors and customers to its questionnaires and additional information contained in submissions from the Parties as well as from third parties.

71. As regards Alcatel-Lucent (and Nortel for UMTS business), it must be observed that shares of sales and the record of successful bids as regards mobile network equipment in the EEA does suggest that they represent a competitive force in the market, capable of constraining the merged entity and Ericsson post merger, even if as a third vendor. To this extent, the forthcoming transfer of the UMTS assets of Nortel to Alcatel-Lucent will certainly strengthen the competitive position of Alcatel as regards its WCDMA offerings.

72. As regards Nortel (a Canadian-based company), the investigation provided indications that Nortel's presence in the EEA is scattered, its main focus being the US and the North American markets. The scope of its mobile network equipment business is somewhat limited compared to the merged entity and to Ericsson. Therefore, regardless of the proposed transfer to Alcatel-Lucent of the UMTS RAN business, it is unclear to what extent it could be a strong competitive constraint in the EEA post-merger.

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[29] The Commission has received on November 3rd, 2006, the notification of a proposed merger between Alcatel-Lucent and Nortel Networks, involving the transfer of Nortel's UMTS RAN business to Alcatel-Lucent. Therefore, for the purpose of this assessment and without prejudice to the appraisal of the effect of that transaction, the share of sales of Alcatel-Lucent and of Nortel should be considered as one entity, according to a competition worse-case scenario.

73. As regards Huawei, the market investigation mostly provided indications that Huawei, despite its aggressive pricing, has not made a significant inroad so far in the EEA. In addition a number of customers are doubtful as regards the possibility to switch to Huawei in the absence of an established track record in the EEA. In particular, Huawei only gained a limited share and presence in the EEA, by essentially entering into a European carrier's business, but only after a fairly considerable number of years. This makes it unclear to what extent Huawei is capable, at present and post-merger, to be considered as a credible alternative to Nokia-Siemens and to Ericsson at least in the EEA.

74. As regards NEC, it has to be observed that since 1999 it formed a joint venture agreement with Siemens to develop 3G/WDCMA infrastructure technology. It appears that the EEA presence of NEC is essentially in conjunction with Siemens. Regardless of the effect of the present transaction on the joint venture, it is doubtful whether, on an independent basis, NEC could represent a credible competitor vis-à-vis the merged entity and Ericsson post-merger.

75. Therefore, based on the above, it would appear that besides the merging Parties and Ericsson there is still at least another credible vendor in the EEA space, i.e. Alcatel-Lucent.

Customers' overlaps

76. Having said that, in any event, concerns about the reduction of the number of credible suppliers in general, and about the supply arrangements involving the Parties' installed base in particular, are mitigated by the fact that actual Nokia-Siemens customer overlaps are rather limited in the EEA.

77. According to the Parties, Nokia and Siemens would be the sole suppliers of the same type of equipment in only [...] instances[30] out of a total of approximately [...] customers, which represents [0-10]% of customers. Furthermore, firms operating in more than one country such as Vodafone and T-Mobile have suppliers other than the Parties in the various countries. In addition, a reduction of the number of suppliers (including both Nokia and/or Siemens) from 3 to 2 would occur only in [...] instances[31], which adds up to [0-10] % overall.

78. The Commission has analysed based on the results of its market investigation, in particular replies from third party competitors and customers, the possible reduction of suppliers from 3 to 2 and from 2 to 1. It was found that 5 customers would face a reduction from 2 to 1, which represents 5.8 % of customers[32]. A reduction from 3 to 2 suppliers (including operators with either Nokia or Siemens or both) would occur for 21 operators, which represents 24% of customers[33].

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30 [...]

31 [...]

32 Three customers were indicated by [a third party] [...], concerning essentially W-CDMA deployments, and [...] customers were indicated by [...].

33 These customers would be: [CONFIDENTIAL Identity of customers]. This list includes the addition of the customers as indicated by a third party and the customers as indicated by the Parties.

79. The above percentages are lower if *only the responses of customers* to the Commission's questionnaires about their suppliers are taken into account. For this purpose, a distinction has to be made between the customers' actual suppliers, to which tenders were awarded, and all suppliers including the other credible suppliers (e.g. Alcatel-Lucent). The tables below give the percentages of customers that would be concerned by the possible reduction in the number of suppliers based on the responses to the Commission's questionnaires.

Table 4.1:
Percentages of customers facing reduction of vendors on the basis of actual suppliers :

REDUCTION OF VENDORS FROM/TO	% OF CUSTOMERS ON THE BASIS OF ACTUAL SUPPLIERS ONLY
2 to 1	3%
3 to 2	6%
4 to 3	5%

Table 4.2:
Percentages of customers facing reduction of vendors on the basis of actual and credible alternative suppliers :

REDUCTION OF VENDORS FROM/TO	% OF CUSTOMERS ON THE BASIS OF ACTUAL AND CREDIBLE ALTERNATIVE SUPPLIERS
3 to 2	4%
4 to 3	17%

80. The above figures in table 4.1 indicate that in very few instances customers would face a reduction of suppliers, either from 2 to 1 or 3 to 2, on the basis of only taking into account the actual suppliers. However, for many other customers the proposed transaction does represent no change. When including the other credible alternative (mainly Ericsson and Alcatel-Lucent) suppliers into consideration (see figures in table 4.2), no customer would face a 2 to 1 scenario and only a few might be concerned with a 3 to 2 scenario. Many customers will continue to have after the transaction at least a choice among three alternative vendors. As indicated above, the Commission has found that apart from the three largest vendors, at least one other credible vendor exists which needs to be taken into account for the analysis.

81. This conclusion is supported by the fact that in reply to the market investigation customers have not provided any substantiated complaints vis-à-vis the merger.

Customers' suppliers

82. Customers, who replied to the Commission's investigation, were asked to provide the name of their suppliers and to indicate the kind of equipment they bought from them in 2004 and 2005. Nokia and Ericsson were the suppliers of RAN and CNS in about 30%

to 40% of the instances. Where specified in the response, this is also true for 2G RAN and 3G RAN. The remainder is represented by Siemens, Alcatel and Nortel who each were mentioned by about 15% to 25%. One exception is Siemens for 3G RAN, which was mentioned by about 35%. These figures already indicate that customers source their network equipment from several vendors. A further step in the analysis revealed that about 70% of the customers have sourced RAN, 2G and 3G RAN, and CNS from at least three different suppliers or even more[34]. Except for one, these customers represent many of the largest mobile telephony network operators in the EEA, who appear to run a network infrastructure based on RAN and CNS sourced from different vendors. It was also found that the same network operator has chosen such equipment from different suppliers for their different geographic areas of operation, and even within the same country they seem to source for instance RAN from different vendors.

Analysis of bidding data

83. In order to assess whether the merger gives rise to non-coordinated effects, by removing an important competitive constraint on one another, the Commission requested both Nokia and Siemens to provide bid lists for the purpose to carry out a win/loss analysis. The Commission has also addressed to the market participants a request with a view to collecting similar bid data from other vendors (such as Ericsson). The lists comprise bids made in the years 2005 and partly 2006[35]. Considering the largest bids that Nokia lost, Siemens was present as bidder in about [30-40]% of the tenders, but did not win any bid. Ericsson won approximately [70-80]% in these tenders. In Siemens' largest lost bids, Nokia was present in around [60-70]% of these tenders but only won [20-30]% of them.

84. When considering the entire dataset (including wins and losses) of respectively either Nokia or Siemens, in Nokia's largest bids, which included bids submitted in the EEA and world-wide, Siemens was present around [10-20]%, whereas in Siemens' largest bid list, Nokia appeared only [...] in a total of [...] bids[36].

85. Furthermore, Ericsson provided their bid list covering largely similar time and value ranges. Analysis and the crosscheck with the parties' bid lists revealed that either Nokia or Siemens were able to win about [30-40]% in these tenders. However, Nokia and Siemens appeared both in only approximately [10-20]% in these tenders during the first round.

86. The Parties provided in their notification also an analysis of bidding data on the basis of Nokia's and Siemens' bids in which they each participated between 2003 and June 2006 and for which the tender value exceeded EUR 1 million, as regards the EEA and the US. Considering the Nokia EEA data set, the analysis of the Parties revealed that

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34 These are Nokia, Siemens, Ericsson, Alcatel and Motorola.

35 The Commission, in its market investigation, had asked for an exhaustive list of the parties bids. The parties have provided global and EEA lists of their largest and smallest won/lost tenders. The value of these bids was below EUR 600.000 and above EUR 1.500.000.

36 The Parties provided the Commission with their own analysis of Nokia's and Siemens' bid data. In summary, the study concluded that Nokia and Siemens meet in all tenders about [10-20]%. Even on a narrower basis, i.e. RAN for GSM/EDGE they meet in all tenders about [10-20]%, while in RAN for W-CDMA the frequency is about [30-40%].

they were the sole bidders in less than [0-10]% of the tenders. When considering the Siemens EEA data set, the figure is about [0-10]%.

87. This relatively low rate at which Nokia and Siemens were both present in all tenders leads to the conclusion that Nokia and Siemens were not necessarily each other's best competitive constraint prior to the merger.

Qualitative analysis of closeness of substitutes

88. A qualitative analysis was also carried out on the basis of the customers' responses to the Commission's questionnaires with respect to what vendors they consider to be the best/closest substitutes to Nokia and/or Siemens. In 95% of the replies, customers see Ericsson as the best/closest alternative to Nokia and 85% see Ericsson as the best/closest alternative to Siemens. As regards Alcatel-Lucent, 60% of the respondents see this competitor as the best/closest alternative to either Nokia or Siemens. Only 10% of respondents see Nokia as the best/closest competitor to Siemens and the same percentage of respondents see Siemens as the best/closest alternative to Nokia. These figures give a clear indication that customers see other competitors such as Ericsson or even Alcatel-Lucent to be the best/closest alternative suppliers for them rather than each of Nokia and/or Siemens. The replies from customers further indicate that a vast majority of customers see at least three competitors as alternative suppliers to either Nokia and/or Siemens and several replies mention both Ericsson and Alcatel-Lucent, apart from other smaller players such as Nortel, Huawei, and ZTE. In particular, these figures show that Alcatel-Lucent can be seen as a credible competitor to the merging Parties and Ericsson.

Conclusion on non-coordinated effects

89. Against this background, it is very unlikely that the merger brings about non-coordinated effects in the mobile network equipment markets at stake.

Coordinated effects

90. Although in certain segments of the mobile network equipment sector (in particular in the RAN and the CNS, and sub-segments thereof) the combined position of the new entity and market leader Ericsson would be around [60-70]% following the merger, the results of the market investigation do not support the conclusion that the proposed operation would lead to the creation or strengthening of a collective dominant position. In particular, competitors (including recent entrants) responded that the proposed operation would not result in any significant impact on the network equipment sector, in particular for mobile telecommunication networks. Customers did not raise concerns of this nature either. In fact, responses to the Commission's market investigation indicate that the new entity will continue to be constrained by competitors Ericsson and Alcatel/Lucent who are considered credible alternative network equipment suppliers in the EEA.

91. Additionally, in light of the characteristics of the relevant markets, it is very unlikely that coordinated effects would appear[37].The mobile network equipment sector is

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[37] See also Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings (2004/C 31/03), paragraphs 39 *et seq*.

characterised by fast moving technological developments where innovation is key. Moreover, customers require network solutions according to their specific needs and products are therefore not necessarily of a homogeneous nature.

92. Against this background, it is very unlikely that the merger brings about coordinated effects in the mobile network equipment markets at stake.

Conclusion as regards Mobile Network equipment markets

93. In the light of the above, as regards the potential market(s) for mobile network equipment, and relevant segmentations thereof, the transaction does not bring about any significant impediment of effective competition.

Fixed-line network equipment

94. *Network* access *equipment*: The increment in market shares with regard to broadband, more specifically DSLAMs and ATM DSLAMs, remains low ([0-10] and [0-10]%, respectively) due to Nokia's limited presence on the market. However, post-merger the combined entity will rank number two in Europe (with a market share of [20-30]% and [20-30]%, respectively) after Alcatel/Lucent with a market share of [40-50]% and [50-60]%, respectively. There will remain a limited number of competing suppliers with rather modest market shares, out of which Ericsson is the strongest in all DSLAMs with a market share of [0-10]% and ECI in ATM DSLAMs with [0-10]%. The competitive fringe represents [10-20]% and [0-10]% respectively. Through the transaction, the Parties will also considerably strengthen their position on the market for narrowband access equipment by becoming the market leader with a market share of [10-20]% (Nokia [0-10]%; Siemens [10-20]%). However, post-merger there will remain at least three competing suppliers with significant market shares (Huawei [10-20]%, Ericsson and Nortel, each [10-20]%), followed by Alcatel/Lucent with [0-10]%. Other market players jointly represent [20-30]% in this segment.

95. *Core* network *equipment*: Similarly, the increment in market shares with regard to core network equipment, more specifically TDM and softswitches, remains low ([0-10] and [0-10]%, respectively) due to Nokia's limited presence on these markets. Post-merger the combined entity will remain the market leader on TDM switches with an EEA-wide market share of [30-40]% before Alcatel/Lucent ([20-30]%) and will remain number two in Europe in soft switches (with a market share [10-20]%) after Italtel ([10-20]%).

96. *Transport* and *IP networking equipment*: The increment in market shares with regard to microwave radio transmission, more specifically all PTP and short-haul PTP, also remains low ([0-10] and [0-10]%, respectively) due to Nokia's limited presence on these markets. Post-merger the combined entity will remain number two in Europe with market shares of [20-30] and [20-30]%, respectively, after Ericsson ([20-30] and [30-40]%, respectively).

97. Even within the narrowest fixed-line network equipment segmentation, the transaction will not give rise to competition concerns. According to the market investigation, Nokia and Siemens rarely seem to compete against each other for fixed lined network products. Indeed, many customers seem to think of Nokia's and Siemens' product portfolios as complementary rather than competing, mainly because Nokia's focus is on mobile network equipment. In addition, as shown by the tables above, post-merger, there are a number of competing suppliers of fixed-line network equipment whose products are viewed by customers as being technologically equivalent to, and price

competitive with, the Parties' products. In particular, Alcatel/Lucent and Ericsson offer products within all concerned sub-segments and Huawei in all but microwave radio transmission equipment, where NEC has a considerable market presence together with a number of niche players.

98. Some respondents have raised the concern that the merged entity may not provide sufficient support for "legacy" equipment, *i.e.,* repair and maintenance, as well as minor upgrades and extensions, in particular in the TDM area, where the merged entity will command a considerable market share. Initially, it should be noted that the Commission has found in its previous investigation that TDM switches in advanced economies such as the EEA are currently limited predominately to "legacy" demand, as carriers increasingly overlay (and eventually replace) existing circuit-switched networks with IP-based networks[38]. Because of the current migration of the market, customers appear to have the ability of potentially retaliate any discontinuation of support of TDM switches by threatening/limiting their purchases of softswitch-based next generation equipment, as well as sponsoring new entry for competitors. The market investigation showed that in particular softswitch vendors are entering the market. There are also contractual commitments to support TDM-based networks typically last for up to [...] years, thus ensuring on-going support during the likely phase-out period of TDM-based equipment in any event.

99. Based on the above, the transaction does not bring about any significant impediment to effective competition in the provision of fixed -line network equipment.

Associated mobile and fixed-line services

100. *Associated mobile and fixed-line services*: on the basis of an overall market for all associated mobile and fixed-line services, the Parties' combined EEA-wide market share amounts to [10-20]% in terms of value (Nokia [0-10]%; Siemens [0-10]%). Post-merger the combined entity will become the market leader in the EEA for all mobile services with a market share of [20-30]% (Nokia [10-20]%; Siemens [0-10]%), closely followed by Ericsson ([10-20]%), and on a service-by-service basis for mobile services, as presented by the Parties, for deployment, delivery and installation services and maintenance and care services with combined market shares of [20-30]% (Nokia [0-10]%; Siemens [10-20]%) and [20-30]% (Nokia [10-20]%; Siemens [0-10]%), respectively.

101. Based on the market investigation, Nokia and Siemens seem in particular to be in competition for mobile services and more rarely for fixed-line services. As regards the identified affected sub-markets (i) deployment, delivery and installation and (ii) maintenance and care for mobile networks, post-merger, there will be a sufficient number of mainly mobile equipment suppliers competing with the merged entity to provide these services as part of an overall tender for mobile equipment and related services in the EEA. The competition for these services will thus mainly take place in the markets for mobile network equipment, where competition concerns have been excluded (see above). If (i) deployment, delivery and installation and (ii) maintenance and care for mobile networks are considered separately, the merged entity will also, to an increasing extent, be under competitive constraints from sub-contractors, which are also active on the market as independent service providers. Also, there is a certain

38 *Alcatel/Lucent Technologies*, COMP/M. 4214, para. 34.

development for vendors to build capabilities to provide services on other vendors' equipment.

102. Based on the above, the transaction does not give rise to competition concerns, either in an overall market for the provision of associated telecommunications services or in any sub-segment thereof.

C. Discontinuation of products

103. In the course of the investigation various respondents have raised concerns that due to the merger, relevant product lines of one of the two merging parties may be discontinued. This could involve important costs for operators, leading to premature obsolescence of existing products, with potential disruption for the operation of the operators' network. Along these lines, some customers have also raised the issue that service support for existing products (and upgrades) would not be adequately guaranteed by the parties, and that they may likely be induced to shift to the merged products before the end of product lifecycle. This could inter alia also potentially affect the operators' independent decisions concerning future strategic migration/convergence plans, to the advantage of the merging parties' strategic decisions.

104. While it is true that there might be reasons going forward to rationalize product portfolios, the Parties have declared to the Commission that they have not decided on any merger-related discontinuation of product lines. In this respect the Commission's investigation showed that the Parties will have, post-merger, commercial incentives as well as contractual obligations to ensure that any future product discontinuations will take account of their customers' interests. This is borne out by the existence of gradual "phase out" programs (where possible with backward compatibility to both the previous Siemens and Nokia product lines) and ongoing support for retiring equipment[39].

105. In addition, customers have contractual support clauses that require the Parties to provide adequate "phase-out notice" of any intention to discontinue the relevant products (normally around [<2 years]). When the phase-out decision has been made, consultation between supplier and customer begins with a view to obtaining suitable successor products. Supply contracts may often provide for the supplier to assist in sourcing an alternative supplier and to bear the costs of this exercise[40]. The Parties also frequently guarantee ongoing support for the retiring equipment[41].

106. Product discontinuation usually follows generational technology shifts (*e.g.*, 2G RAN to 3G RAN) and/or decreasing demand for products that are overtaken by newer platforms that offer better functionality/capacity or lower operating costs. It should be

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39 For example, [...] with Nokia obliges Nokia to provide software interoperability services and software support together with a hardware repair service for a period of [0-10] years from the phase-out date in relation to RAN equipment and circuit-switched core equipment.

40 This is for instance the case in Nokia's supply agreement with [...]

41 For example, in [...] with Nokia it was agreed that Nokia would provide the following services concurrently after the phase-out date: Full support services for RAN and core equipment for between [0-10] years; Expansions, spares and software support for RAN and Core equipment for [0-10] years; and Software interoperability services and software support for certain categories of network faults for RAN and core equipment for between [0-10] years.

emphasized that a product discontinuation that requires customers to invest in the replacement of their installed base creates an inflection point that offers rivals opportunities to capture new business. This could dissuade the Parties from unduly dissatisfying customers.

D. Nokia's position in connection with standardization and deployment of new technologies

107. Various respondents have raised the concern that the merged entity would have the ability and incentive to exert very significant influence on product standardisation activities (especially within ETSI, in respect of which a third party claimed that Nokia will effectively double its significant voting rights). This could result in embedding IPRs into standards. This could raise barriers to entry, also to the extent that it would enable the merged entity to be in control of the technological drive (especially as regards the future development in mobile networks technology). Nokia would become a gatekeeper of new/upgrade technologies and would be able to promote its proprietary technology(ies), while delaying or blocking competitors' technologies.

108. The investigation has revealed that the present transaction will not materially increase the Parties' influence in the relevant Standard Development Organizations ("SDOs"), in particular it will not allow Nokia and/or the merged entity to become a possible manipulator or "gatekeeper" of technologies.

ETSI

109. Within the EEA, the principal SDO for network equipment is ETSI[42]. ETSI has currently a total of 24 Board members, plus 5 *ex officio* members. Nokia currently has [...], while Siemens has [...] plus []43. Board composition changes every three years. Based on the above, it does not appear that the merger will affect the decision making within ETSI Board to any significant extent.

110. All ETSI members have the right to participate at the technical body level. At such level, members first attempt to reach agreement on the approval of a draft standard by"*consensus*"[44]. Final approval of ETSI standards by the General Assembly is done

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42 The objective of the ETSI is to produce and to perform the maintenance of the technical standards and other deliverables which are required by its members. As a recognised European Standards organization, an important task shall be to produce and perform the maintenance of the technical standards which are necessary to achieve a large unified European market for telecommunications, other electronic communications networks and services and related areas. Within these general activities ETSI provides for a notification of the patents on technology that may be included in a standard and a licensing on fair, reasonable and non-discriminatory ("FRAND") terms. ETSI comprises around 654 members from 59 countries, including manufacturers, network operators, administrations, service providers, research bodies and users. The adoption of an ETSI standard requires approval at two levels: first, it must be approved by a technical body; second, it is submitted to the General Assembly for the membership approval process. Please note, that ETSI's rules have been agreed by the commission after an investigation in December 2005.

43 As indicated in the Rules of the operation of the board, ex-officio members of the board do not have the right to vote. For further information, please refer to ETSI Rules of Procedure from the 23 November 2005, Annex 7 "Rules of operation of the board", Article 1.

44 See Article 1.7 of the ETSI Technical Working Procedures. Consensus is defined as "General agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interest and by a process that involves seeking to take into account the views of all parties

with a weighted voting process. Votes are weighted according to the global turnover of the member in the areas covered by ETSI's standardization remit, but are capped at a maximum of 45 votes (for members whose relevant turnover is above € 8 billion). With a pre-merger total worldwide turnover significantly in excess of €8 billion, Nokia had already acquired the maximum ETSI member votes prior to the merger. Assuming that Siemens would retain the maximum pre-merger ETSI voting rights and further assuming that Siemens would vote in alignment with Nokia on all issues covered by ETSI activities, the Parties' combined post-merger ETSI votes could reach a maximum of 136 votes (in the event that also Nokia Siemens Networks sought to establish itself as an independent member of ETSI).

111. ETSI has over 650 members (with approximately 3203 votes when the weighted voting system is applied) and a 71% majority vote is required to pass decisions[45]. Network operators[46] also represent a significant part of all members of ETSI, and therefore could oppose any attempt by the Parties to dominate the standardization process in order to obtain market power in a certain technology[47]. Therefore, it is very unlikely that Nokia post-merger increases its influence within ETSI, in particular to such an extent to hold a "gatekeeper" position.

3GPP

112. 3GPP prepares, approves and maintain globally applicable technical specification and technical reports for a 3rd generation Mobile System based on the evolved GSM core network and the Universal Terrestrial Radio Access (UTRA), to be transposed by the Organisational Partners into appropriate deliverables (e.g. standards). In substance, it approves standards documents known as "Technical Specifications" and "Technical Reports". Technical work within 3GPP is undertaken by the Technical Specification Groups ("TSGs") and their Working Groups ("WGs"), which draw up the said documents. These documents, following approval at that level, are submitted to the participating organizational partners (e.g., ETSI, and other recognised SDOs[48]) to be submitted to their respective standardization processes[49]. Decision-making in the TSGs follows the same principles as in ETSI, in particular a preference for reaching

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concerned and to reconcile any conflicting arguments." If consensus cannot be achieved, the technical body can move to a vote (usually by secret ballot).

45 A proposal shall be deemed to be approved if 71% of the votes cast are in favour. Abstentions or failure to submit a vote shall not be included in determining the number of votes cast. If a proposal fails to achieve 71 %, the result shall be re-calculated using the votes of European ETSI members only. If the re-calculated result achieves 71 %, the proposal shall be deemed to be approved.

46 For example, entities owned or controlled by the [...] have a total of 132 votes.

47 According to the Parties, using the weighted vote system, approximately 40% of votes are held by network operators and 40% are held by manufacturers, with the remainder held by administrations, service providers, research bodies and users.

48 These include: ARIB (Japan), CCSA (China), ETSI (Europe), ATIS (US), TTA (Korea), TTC (Japan).

49 Member companies affiliated with one of the 3GPP organizational partners are eligible to become individual members of 3GPP and to contribute to one or more of the technical specification groups ("TSGs").

consensus wherever possible. If consensus cannot be achieved, the TSG can move to a vote (with 71% majority needed).

113. The ETSI Delegation to the 3GPP comprises the ETSI Director-General, one Nokia ETSI Board member, one Siemens ETSI Board member, and three other ETSI Board member representatives. The ETSI 3GPP delegation is mainly active in the 3GPP Project Coordination Group ("PCG"). The PCG has mainly a coordination role, e.g., appointing TSG chairmen, ensuring inter alia, that proper resources are given to the TSGs/WGs etc. To the extent that the PCG takes decisions, these are, like ETSI, done on the basis of consensus[50]. If a vote is required, the quorum required for decision-making is 50% of the total number of Organizational. Each Organizational Partner has one vote. As in ETSI, a proposal is considered approved if 71% of the votes is cast in favour.

114. Based on the above, it appears to be unlikely that post-merger the Parties will increase their ability to use their membership of the ETSI 3GPP Delegation to exert a material adverse influence on 3GPP.

Future SDO activities

115. As regards future SDO activities, future mobile standards will be based on new types of technologies. In particular, 3G mobile equipment standards (i.e., WCDMA, CDMA 1xEV-DO) will be gradually replaced by a new standard known as 3G Long Term Evolution ("LTE"). LTE uses a new type of radio technology, orthogonal frequency division multiplexing ("OFDM"). Given the existence of current activity and partnerships of Siemens in the area of Flash-OFDM, in this respect, a third party has expressed the concern, in particular, that the Parties' incentives to promote Flash-OFDM technology could change post-merger and that this could lead to the to cause a significant competitive disadvantage to Flash-OFDM, to the benefit of their "proprietary" technologies.

116. In response to a Commission's request for information, the Parties stated, while pre-merger Nokia was not active in Flash-OFDM technology, Siemens has certain trial activities going on[51]. The Parties have also provided the existing contracts that Siemens has entered into in the area of Flash-OFDM. These contracts provide for on-going support in case of any discontinuation of products[52]. In addition, the Parties submitted

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50 Taking into account the views and opinions of the Market Representation Partners (non-telcos that offer market advice to the PCG) and the Chairmen and Vice Chairmen of the TSGs.

51 Siemens has trial activities in the area of Flash-OFDM These included trials with T-Mobile Slovakia and Digita in Finland. Siemens also has on-going discussions on the use of Flash-OFDM with [...] Germany (use of Flash-OFDM to provide Internet access [...]) and [...] (Ireland).

52 In particular, regarding the contract with [...]. which covers the supply of Flash-OFDM equipment, Siemens must give at least [...] year's notice of the discontinuation of any product and must also guarantee on-going product support for [...] years. The agreement between [...] and Siemens for the potential use of Flash-OFDM [...] is not yet finalized. Under the terms of the Global Framework Agreement with [...], Siemens must give at least [...] year's notice of any discontinuation of any product and must also guarantee on-going product support for [...] years. Siemens further has an obligation to ensure the compatibility of spare parts or replacement units with new software releases for between [...] and [...] years: As regards the contract with [...]**,** the first purchase order for Flash-OFDM products with [...] was signed on [...]. Under the terms of Siemens' Frame Contract with [...], which covers Flash-OFDM,

that Nokia Siemens Networks' decision to support Flash-OFDM post-merger will depend entirely on the operators' appreciation of this technology. Indeed, given that the area of future technologies is still a green-field, and in view of the fact that the patent position in respect of future LTE is more fragmented than in respect of 3G, with the Parties holding a weaker patent position than for current generation radio technologies, regardless whether or not they would have the ability to do so, it is not likely that Parties would have an incentive to disfavour a nascent technology, such as Flash-OFDM, in order to push a proprietary technology, as a result of the merger. In any event, it has not been established that, without the support of the Parties, the Flash-OFDM technology would be early marginalised among the new technologies, as a result of the merger.

117. Therefore, based on the above, it is very unlikely that Nokia post-merger increases its influence within future SDO activities, in particular to such an extent to create a significant competitive disadvantage to Flash-OFDM technology, to the benefit of their own "proprietary" technologies.

E. Vertical relationships

Bundling of infrastructure and handsets products

118. In the course of the market investigation, some respondents raised the issue that post-merger Nokia would be able to offer Siemens' infrastructure customers bundled handset and infrastructure pricing that competitors with only infrastructure could not match, thereby ultimately reducing the size of addressable market for potential new entrants.

119. In this respect, it must be noted that already pre-merger Nokia has both a handset and a network equipment business. It should also be observed that the merged entity' EEA shares of the (upstream) mobile network equipment range from 25%-35%, while Ericsson (which is also active in handsets via Sony/Ericsson) has a larger share. In the three first quarters of 2006, only about [0-10]% of Nokia's handsets sales (by value) were sold through its Nokia Networks business group. This appears to suggest that, at Nokia, the importance of handsets sales to the network equipment business is somewhat limited.

120. In any event, regardless whether these possible bundling practices are already common practice in the marketplace, or would be made in response to customer's request or would be made upon the initiative of the merged entity, it has to borne in mind that Ericsson remains the market leader in most of the mobile equipment segments. Therefore, it appears highly unlikely that these bundling strategies, if any, could ultimately have a detrimental effect for customers and could foreclosure/marginalise network equipment competitors.

Leveraging of Nokia's position in network equipment in the downstream handset market

121. Some respondents voiced potential adverse effects of the merger as regards the downstream handset market. In particular one respondent claimed that Nokia would command in the EEA a market share in excess of 50% for handsets, and that, through

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Siemens must guarantee on-going product support for [...] years and must give at least [...] notice of any discontinuation of any spare parts.

the merger of the parties' mobile network equipment businesses, Nokia would have the ability and the incentive to adopt some practices as regards Siemens' infrastructure customers, which would adversely affect Nokia's downstream handset competitors[53].

122. In this respect, it must be noted that there will be no overlap in the downstream handset market, as Siemens no longer has a handset business, having sold this in 2005 to BenQ. As regards the situation in the downstream market for handsets, based on Gartner Dataquest data, in Western Europe Nokia's market share is [30-40]%, other main competitors being Motorola (with [10-20]%), Samsung (with [10-20]%), Sony-Ericsson (with [10-20]%), BenQ Mobile (with [0-10]%). At the outset, the above data and share of sales put in question the ability of Nokia to engage in any successful "leveraging" strategy at the juncture between network equipment and handsets markets.

123. Interoperability testing ("IOT") is essential to both categories of vendors (network equipment vendors and handset vendors). Testing is generally undertaken on a bilateral basis following a handset vendor's or a mobile operator's request. IOT testing gives the handset vendor advance confirmation that its products will interoperate with different infrastructure vendors' equipment. Conversely, for an equipment vendor, IOT avoids the need to make successive changes to a customer's equipment to rectify any interoperability problems with third-party handsets. Network equipment vendors, including Nokia, may in fact face higher cost as the network may need to be changed in order to rectify possible interoperability problems[54]. On the other hand, Nokia (as a handset manufacturer) would also need the cooperation of a number of network equipment vendors for testing the compatibility of Nokia handsets with their network equipment. The addition of Siemens' mobile equipment business would not appear to alter (in favour of Nokia) to a significant extent this degree of interdependence between handset and equipment vendors, and the need for interoperability between different network equipment and handset types[55].

124. Indeed, Nokia own handsets must interoperate with competitors' network equipment. Should Nokia engage in leveraging strategies vis-à-vis upstream (i.e. infrastructure level) or downstream (i.e. handset manufacturers) rivals, these rivals could likely react. As Nokia's handset sales are several multiples larger than its network equipment sales (even including Siemens' mobile network equipment sales), this would risk to damage in Nokia's handsets sales in the first place.

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53 Allegations include the following: Nokia could refuse or delay access to testing facilities to competitors for certification of competitors' handsets for interoperability purposes with Nokia (and also Siemens's) infrastructure equipment (for European UMTS networks). Nokia may use this strategy to block or delay the supply of handsets from competitors and/or to gain leverage in licensing negotiations with handset suppliers. Nokia would be able to offer Siemens' infrastructure customers bundled handset and infrastructure pricing that competitors with only infrastructure could not match. Nokia would have a formidable timing advantage in the development and release of handsets (as competitors are granted access to testing facilities when they are close to commercialization). This time advantage would be crucial as operators are eager to secure sufficient supply of suitable handsets with the introduction of new network technologies. The proposed merger would allow Nokia to extend its competitive advantage to operators that have selected Siemens as their infrastructure vendor.

54 Nokia stated to perform over [100-300] interoperability test sessions annually with nearly [20-50] different handset vendors. Siemens' corresponding numbers appear to be slightly lower. Nokia reported about an incident occurred [...] regarding an [...] test with [...]. See footnote further on.

55 Nokia has Service Level Agreements guaranteeing network functionality to operators.

125. Furthermore, should Nokia and Nokia Siemens Networks refuse/delay IOT, they would risk to damage its own equipment business, since operators expect that handsets – Nokia or otherwise – function with Nokia (and, post-merger, Siemens) network equipment[56]. Finally, also customers (*i.e.*, carriers) could also negatively react to Nokia's attempt post-merger to favour its handset business - through the enlarged network equipment customer base - to the detriment of handset rivals in respect of interoperability testing. This could indeed reduce Nokia's incentive in engaging in such practices.

126. Therefore, it appears highly unlikely that these leveraging strategies, if any, could ultimately have a detrimental effect for customers and could foreclosure/marginalise handset competitors.

VII. CONCLUSION

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

For the Commission
signed
Neelie KROES
Member of the Commission

56 [...].