Summary of Commission Decision

of 2 July 2008

declaring a concentration to be compatible with the common market and the functioning of the EEA Agreement

(Case COMP/M.4942 — Nokia/Navteq)

(Only the English version is authentic)

(2009/C 13/06)

On 2 July 2008, the Commission adopted a Decision in a merger case under Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings [1], and in particular Article 8(1) of that Regulation. A non-confidential version of the full decision can be found in the authentic language of the case and in the working languages of the Commission on the website of the Directorate-General for Competition, at the following address:

http://ec.europa.eu/comm/competition/index_en.html

I. THE PARTIES

(1) Nokia Corporation ('Nokia', Finland) provides equipment, solutions and services for electronic communications networks. The company is principally known as a manufacturer of handsets for mobile telephony ('mobile handsets'). Nokia also intends to develop mobile online services via its 'OVI' portal, including so-called Location-Based Services ('LBS').

(2) Navteq Corporation ('Navteq', United States of America, 'United States') is a supplier of digital map data used in navigation devices and to provide a wide range of LBS.

II. CONCENTRATION

(3) On 1 October 2007, Nokia announced the signing of an agreement according to which Nokia will acquire all shares and outstanding options in Navteq. The transaction constitutes a concentration within the meaning of Article 3(1)(b) of Regulation (EC) No 139/2004 (the 'Merger Regulation').

III. ARTICLE 4(5) REFERRAL

(4) The parties to the concentration do not meet either of the alternative turnover thresholds set out in Article 1(2) and 1(3) of the Merger Regulation. The transaction would have been capable of being reviewed under national merger control law in 11 Member States [Business Secrets].

(5) On 22 November 2007, the Commission received a reasoned submission by Nokia in which the company requested a referral to the Commission pursuant to Article 4(5) of the Merger Regulation. No Member State objected to the referral of the transaction to the Commission. The transaction is therefore deemed to have a Community dimension and has been examined by the Commission.

IV. RELEVANT MARKETS

1. Upstream markets

(6) Navteq commercialises navigable and non-navigable digital map databases. Both categories of maps can be used for inclusion in Location Based Services (LBS) in mobile handsets. Navigable maps allow for real-time turn-by-turn navigation applications. However non-navigable digital map databases account for less than 5 % of Navteq turnover.

(7) The competition analysis conducted by the Commission concluded that no competition concerns may arise in the upstream market for non-navigable digital map databases, notably because a number of competitors are present, and because barriers to market entry are limited. The Commission has therefore focused its competition analysis on the upstream market for navigable digital map databases, and the relevant downstream markets.

Navigable Digital Map Databases

(8) Like in the recent *TomTom/Tele Atlas* decision, the Commission defined a relevant market for the provision of navigable digital map databases, where the geographic coverage of the databases determines the scope of the product market. The exact delineation of the relevant product markets — i.e. whether or not databases covering individual countries, regions or the whole EEA constitute separate product markets — may be left open since it does not affect the assessment. The relevant geographic market is worldwide in scope.

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

(9) The same picture emerges from the market share analysis regardless of which alternative product market is used. The worldwide market(s) for the provision of navigable digital map databases with EEA-coverage is a duopoly where Tele Atlas is the larger player as evidenced by its larger market shares in the total market for all databases with whole or partial EEA-coverage (Navteq: 40-45 %, Tele Atlas: 55-60 %), in the market for databases with regional coverage and in the larger markets for individual countries such as databases covering France, Germany, Italy, Spain or the United Kingdom.

(10) The market investigation in the present case has confirmed the findings in the recent *TomTom/Tele Atlas* decision both as regards the estimated time and cost of entry, as well as the likelihood and impact of entry. While the Commission does not exclude that marginal entry may occur, entry into the markets for the provision of navigable digital map databases with EEA-coverage would be neither timely, i.e. sufficiently swift and sustained, nor sufficient, with regards to its scope and magnitude, to deter or defeat any potential anti-competitive effects of Nokia's acquisition of Navteq.

2. **The intermediate market**

Navigation software

(11) Navigation software combines the data contained in a digital map database with geographic positioning from a GPS-receiver. The navigation software uses an algorithm to calculate routes and provide turn-by-turn directions on screen and via voice guidance. Most manufacturers of mobile handsets and most MNOs do not produce navigation software in-house. These companies typically acquire navigation software from third party software developers.

(12) Like in *TomTom/Tele Atlas*, the Commission considered it appropriate to define a single product market for navigation software comprising all three types of software (on-board, off-board and hybrid) and regardless of the end-use (i.e. software for use in PNDs, PDAs, mobile handsets or other applications). The geographic scope of this market is worldwide.

(13) Nokia is active in the market for the provision of navigation software through its subsidiary gate5 AG which Nokia acquired in 2006. The market share of Nokia/gate5 is limited; [5-10] % of the merchant market in 2006 (the largest suppliers are NAVIGON: [20-30] %, Nav N Go [15-20] % and Destinator: [15-20] %). A large number of companies are active in this market (Nokia lists 23 providers in the notification) and barriers to entry appear to be limited.

3. **Two downstream markets**

(14) The Commission has identified two relevant downstream markets: (i) Navigation applications for mobile handsets; and (ii) Mobile handsets. Navigable digital map databases are an input for all navigation applications, and also for a growing number of mobile handsets with navigation functionality pre-installed.

3.a. *Navigation applications for mobile handsets*

(15) Navigation applications for mobile handsets devices can be sold together with the handset or independently as an aftermarket add-on, and consist of a digital map database and navigation software which uses the database and the information from a GPS receiver to provide information about the current location of the user and, in the case of more advanced applications, provide graphical and voice instructions on how to get to a chosen destination.

(16) Most Mobile Network Operators (MNOs) in the EEA have for instance started, or intend, to offer such services to their customers. Navigation applications for mobile handsets can also consist of navigation software directly purchased by end-customers in shops or on websites of the software developers (e.g. TomTom Mobile navigator 6). They can also be bundled with handsets, for instance when a MNO promotes a handset and includes in it its own-branded navigation service. Navigation applications for mobile handsets can also be accessed via a web browser.

(17) From the point of view of the end-user, the navigation applications delivered through these different channels are very similar. For these reasons it is not necessary to define separate markets for navigation applications depending on the sales channel.

(18) In contrast to on-line applications offering basic routing (Google Maps, Mappy.com, etc.), the advanced navigation applications offer real-time, turn-by-turn navigation accompanied by voice instructions. They also require special navigation software to be installed on the device. Such navigation applications can be embedded on-board of the mobile phone or stored on a central server and accessed wirelessly from the handset (off-board). Hybrid systems combine features of off-board and on-board applications. Ultimately it is not necessary to define separate markets for off-board, hybrid and on-board navigation applications.

(19) Although further differentiation cannot be excluded in the future, for the purpose of this decision a single relevant market for navigation applications for mobile handsets can be defined. With regard to geographic scope, the supply of navigation applications is at least an EEA-wide and possibly worldwide market.

Market conditions

(20) The provision of navigation services on mobile handsets being a nascent industry, no reliable market data, such as market shares, is available, irrespective of the distribution channel. The market investigation indicates that there is a large number of competitors. MNOs have the advantage of having an on-going direct commercial relationship with customers, and can leverage this position to sell navigation applications on mobile handsets. Navigation software providers have the necessary technical expertise but suffer from not having a regular contact with customers. Finally, providers of on-line navigation applications have the advantage of being accessible on mobile browsers (Google Maps, OVI from Nokia).

(21) Barriers to entry in the market for navigation application for mobile handsets are low. A number of navigation software providers (active in the intermediate market) develop white-label products that can be easily branded by MNOs or other players.

3.b. *Mobile handsets*

(22) Mobile handsets equipped with navigation applications are one of the main types of navigation devices. Other devices with navigation functionality are PNDs and PDAs. PNDs, PDAs and mobile telephones with navigation functionality meet different consumer needs. There is limited substitutability between mobile handsets and other types of navigation devices from the point of view of consumers. A mobile handset is a multi-function communication device primarily used for mobile telephony, where the navigation functionality is only one of many features. Due to different functionalities, different types of navigation devices are not fully interchangeable. It can therefore be concluded that mobile phones are a separate relevant product market.

(23) It is common for the latest features to be introduced into high-end handsets and relatively quickly become adopted in a wider range of handsets if the feature is attractive to consumers. The majority of mid-range to high-end handsets currently have operating systems that are capable of supporting navigation solutions. The Commission has considered whether it is appropriate for the purpose of market definition to differentiate between mobile handsets with and without embedded GPS, and concluded that it was not appropriate to do so. Firstly, the majority of mobile handsets currently sold can be used for navigation thanks to relatively inexpensive external GPS sensors which can be linked to a mobile phone via a Bluetooth connection. Secondly, according to analyst predictions, in 2011 approximately [65-75] % of mobile phones sold in Western Europe will have an embedded GPS sensor.

(24) For the reasons mentioned above, the Commission considers that the relevant product market encompasses all mobile handsets. The relevant geographic market is global in scope.

Market conditions

(25) On the markets for the provision of mobile handsets, Nokia is the largest supplier by far. Nokia and its main competitors reached the following worldwide market shares in 2006: Nokia [30-40] %, Motorola [15-25] %, Samsung [10-20] %, Sony Ericsson [0-10] %, LG [0-10] %, BenQ Mobile [0-10] % ([1]). A wide range of handsets are navigation compatible and Nokia is not unique in offering handsets that can be used for navigation. Navigation services are not currently a significant driver of handset sales. However the parties expect that navigation services will become more popular in the future.

(26) Like most electronics markets, the market for mobile handsets is characterized by intense competition and frequent entry of new competitors. In addition to the traditional competitors who have origins in mobile phones, products competing with Nokia's handsets are being introduced by competitors with origins in other electronics and hi-tech markets. Examples of devices gaining market share include RIM's Blackberry, Apple's iPhone, Garmin's Nuviphone and Palm.

V. **COMPETITIVE ASSESSMENT**

(27) The Commission authorised on 14 May 2008 the acquisition without commitments by TomTom of Tele Atlas, the competitor of Navteq in the supply of navigable digital map databases. Although the merger between Nokia and Navteq is analysed independently and presents different characteristics — in particular in the downstream markets — a number of similarities exist between the two cases. The analysis in both cases shows that vertical foreclosure is unlikely because the newly merged entity would lack the incentive to foreclose.

([1]) Source: notification.

(28) The Commission has focused its market investigation on assessing the likelihood of competitive harm arising as a result of the transaction due to (i) non-coordinated effects (input foreclosure by the merged entity in the downstream markets; and access by the merged entity to confidential information of its competitors); and (ii) coordinated effects.

1. **Input foreclosure**

(29) Mobile telephone manufacturers, MNOs, online map users and navigation software providers have expressed concerns that Nokia and Navteq could foreclose them from the market of navigable digital map databases. Foreclosure strategy could be achieved either by increasing prices, by providing degraded map sets, by delaying access to latest maps or attributes, or by reserving innovative features to Nokia. Total input foreclosure was not considered a likely scenario by the respondents to the market investigation.

(30) The Commission examined (i) whether the merged entity would have the ability post-merger to foreclose access to inputs; (ii) whether it would have the incentive to do so; and (iii) whether a foreclosure strategy would have a significant detrimental effect.

Ability

(31) Navigable digital map databases are a critical component for the provision of navigation applications on mobile handsets as navigation applications cannot be delivered without a navigable digital map database. Conversely it is unclear whether navigable digital map databases are a critical input for the market of mobile handsets as navigation applications are only one service among others. Customers could decide to purchase a handset without pre-installed navigation applications and access a navigation solution via a subscription to the navigation service of its MNO for instance. It could also be argued however that navigable digital map databases are an important component for handset manufacturers as the notifying parties have recognised that navigation applications embedded into mobile handsets will be a key factor influencing the sales of handsets in the near future.

(32) Navteq enjoys significant market power in the market for navigable digital map databases, competing only with Tele Atlas.

(33) It cannot be excluded that timely and effective counter strategies could exist that would make a foreclosure by Nokia and Navteq unprofitable. Garmin, a PND manufacturer, has notably signed a long term agreement with Navteq for the supply of navigable digital map databases. It is authorised to re-sell them together with its software. Garmin could be to a certain extent a credible supplier of navigable digital map databases for handset manufacturers ([1]) or MNOs, therefore acting as a third map supplier on the market. Handset manufacturers and MNOs would therefore be indirectly protected from a foreclosure strategy from Nokia. Garmin would however be unsuitable as map database supplier for navigation software providers and on-line providers of navigation services because these clients develop their own navigation software and Garmin is only authorised to sell maps integrated into an application that it has developed.

(34) Motorola [has a contract] with Navteq. The second largest handset manufacturer [will be in a position to exert a competition constraint on Nokia with regard to navigation services installed into mobile handsets].

(35) It can ultimately be left open whether the notifying parties would have the ability to foreclose their downstream competitors because, as will be shown below, Nokia and Navteq have no incentive to do so.

Incentive

(36) Post-merger, Nokia and Navteq will take into account how the sales of map databases to Nokia's competitors will affect its profits not only upstream but also on the downstream market. Therefore, when considering the profitability of an input foreclosure strategy, the merged entity faces a trade-off between the profit lost in the upstream market due to a reduction of input sales and the profit gained on the downstream market by raising its rivals' costs.

(37) The Commission conducted an in-depth qualitative and quantitative analysis to characterize the incentive of Nokia and Navteq in this respect in the market of mobile handsets. Our analysis led to the conclusion that although the profits obtained by selling a mobile handset are much higher than the profits realized on the sale of a map database, the merged entity would lack incentives to foreclose Nokia's downstream competitors. While this analysis only relates to foreclosure of competitors manufacturing mobile handsets, any incentive for the merged entity to engage in input foreclosure with regard to firms providing navigation applications on mobile handsets via other means appears even less likely, in particular in view of the more limited presence of Nokia in this market and the smaller profits that could be captured there.

([1]) The recent announcement of a partnership between Garmin and Samsung is illustrative of the nature of the partnerships that could be developed.

(38) A number of elements limit the incentive of Nokia and Navteq to foreclose their downstream competitors. Firstly, map databases account on average for less than 5 % of the Mobile handsets wholesale prices. As such only a very substantial increase in the price of maps could have an impact on the price of mobile handsets. Secondly, navigation services are only one application among others on mobile handsets. Thirdly, Garmin could sell maps (embedded into its navigation software) to competitors foreclosed by Nokia and Navteq, and Motorola, which is the largest competitor of Nokia [will be in a position to exert a competition constraint on Nokia with regard to navigation services installed into mobile handsets].

(39) In addition, the economic analysis conducted by the Commission concluded that it would not be profitable for Nokia and Navteq to develop any foreclosure strategy. The merged entity would only capture relatively limited sales downstream by increasing map database pricing to Nokia's competitors and the loss of revenue due to decreasing sales of map databases would not be replaced by additional sales of mobile handsets.

(40) In light of the above, the merged entity would have no incentive to increase prices in a manner which would lead to anticompetitive effects in any of the downstream markets.

Effects in the downstream market

(41) For the reasons stated above, the effects of any foreclosure strategy in the downstream markets would be very limited. The low percentage of the map database in the mobile handset costs, the limited switching costs and the competition with Tele Atlas all tend to limit the price increase that could be imposed by Navteq on Nokia's competitors.

(42) In addition, the elimination of the double mark-up will possibly reduce the price of Nokia mobile handsets sold together with navigation applications, although in a very limited manner. In view of the above, the transaction will likely not lead to any anticompetitive harm on the downstream markets.

(43) The notifying parties also submitted that price and non-price efficiencies would result of the merger. The analysis conducted by the Commission effectively concluded that price efficiencies, although very limited, could be considered merger-related. Conversely non-price efficiencies (development of pedestrian maps) are unlikely to be merger-specific, but rather related to the growth in the market for navigation applications on mobile handsets.

2. **Access by the merged entity to confidential information**

(44) The confidentiality concern, as expressed by some third parties, is based on the premise that Navteq's customers have to share information on their future competitive actions with their map supplier. They fear that this information could be used to their disadvantage by the downstream affiliate of the merged company.

(45) The Commission has established that the amount of information of competitive value exchanged between Navteq and its customers is limited and could be further reduced. It is therefore unlikely that the merged entity will be in a position to obtain competitive information from its customers, should they fear that such information could be used to the advantage of the merged entity in the downstream markets for mobile phones or navigation applications. In addition, the merged entity would have incentives to mitigate third party concerns related to confidentiality. In view of the absence of incentives for the parties to engage in input foreclosure, it is likely that the parties would react to possible confidentiality concerns in various ways, most importantly by offering conditions to its customers that would make switching to Tele Atlas unattractive.

3. **Coordinated effects**

(46) The Commission also examined whether the vertical integration of Nokia and Navteq would create any concerns as regards coordinated effects, and found that the transaction is unlikely to lead to anticompetitive effects through coordination for the reasons explained below.

(47) TomTom and Nokia are not active in the same downstream markets and appeal to different customer categories. TomTom is the largest supplier of PNDs in Europe and has a marginal presence in the market for mobile navigation software. Nokia is the largest manufacturer of mobile handsets and intends to develop its presence in the market for navigation applications on mobile handsets via the development of its internet-portal OVI, and has a marginal presence in the sales of PNDs. The concentration therefore neither increases, nor creates an incentive for Nokia and TomTom to coordinate their behaviour in downstream markets.

(48) The market structure on the upstream market for navigable digital map databases becomes, as a result of the transaction, more symmetric with two vertically integrated map providers. However, the investigation showed that this market structure is not conducive to coordination because TomTom and Nokia are active on different downstream markets and therefore have a different incentive structure.

(49) It could be argued that TomTom and Nokia could have a common incentive to degrade the commercial conditions under which Tele Atlas and Navteq commercialise their digital maps, with an objective to render TomTom and Nokia devices and services more appealing if compared with those of their competitors. It is however very unlikely that such a strategy would be sustainable.

(50) Market partitioning between PNDs on the one hand and mobile handsets and navigation applications on the other hand seems to be unlikely in view of very diverging growth expectations. For instance, TomTom/Tele Atlas has a very limited presence in the market of navigation solutions on mobile handsets. Although this market is currently limited in value, it is expected to grow very substantially in the future. Therefore TomTom/Tele Atlas would have a strong incentive to sell digital maps for mobile navigation at prices below Navteq's to be present in this market that is expected to grow faster than the PND market, TomTom's traditional business. Otherwise TomTom/Tele Atlas would run the risk to be undercut by Navteq, and would therefore forego sales of maps that would not be compensated by a decreased competitiveness of its direct competitors, i.e. PND manufacturers. The asymmetry in the incentive structure of the two vertically integrated firms is therefore not conducive to coordination, as it renders such coordination likely unsustainable.

(51) In addition, the conditions for coordination are not met. There is very limited transparency of prices of digital navigable maps and there are large and infrequent contracts, which make deviation from a potential collusive arrangement more likely. In addition Garmin would likely be in a position to destabilise any coordination between Navteq and Tele Atlas via its long term contract with Navteq that guarantees its supply of digital maps. As already indicated, Garmin has already announced its intention to launch a mobile handset with navigation functionality and has announced that its navigation solutions will be made available on Samsung handsets in Europe [Business Secrets].

(52) Bearing these considerations in mind, the Commission concluded that the operation is unlikely to lead to anticompetitive effects through coordination.

VI. **CONCLUSION**

(53) The Commission concludes that the concentration will not give raise to any competition concerns as a result of which effective competition would be significantly impeded in the Common Market or in a substantial part of it. Consequently, the Commission declares the concentration compatible with the Common Market and the EEA Agreement, in accordance with Article 8(1) of the Merger Regulation and Article 57 of the EEA Agreement.