

Completed acquisition by Motorola Mobility Holding (Google, Inc.) of Waze Mobile Limited

ME/6167/13

The OFT's decision on reference under section 22 given on 11 November 2013. Full text of decision published 17 December 2013.

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**Please note that the square brackets indicate figures or text which have been deleted or replaced in ranges at the request of the parties or third parties for reasons of commercial confidentiality.**

**PARTIES**

1. Motorola Mobility Holding ('MMH') is a wholly owned subsidiary of Google, Inc ('Google'). Google, a US company, operates an internet search engine that offers search capabilities for end users free of charge and provides online advertising space on its own websites and partner websites. Google derives virtually all of its revenue from online advertising.
2. Google provides maps-based services via its Google Maps product. Google Maps is an online map provided free to users via the internet, including on mobile devices. Google licenses an application programming interface (API) for Google Maps allowing third parties to use it on their own applications.
3. Waze Mobile Limited ('Waze') is an Israeli company which provides a free map application for mobile devices. It is a dynamic mapping product that enables drivers to build and use live maps, real-time traffic updates and turn-by-turn navigation.<sup>1</sup> Waze's turnover for the year ended December 2012 was £[ ],<sup>2</sup> [ ].

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<sup>1</sup> Turn-by-turn navigation is where directions for a selected route are continually presented to the user in the form of spoken and/or visual instructions. The system keeps

## TRANSACTION

4. On 11 June 2013, MMH acquired Waze's entire issued share capital for the sum of US\$966 million.
5. The OFT launched an own-initiative merger investigation on 5 September 2013. Following extensions under sections 25(1) and 25(2) of the Act, the statutory deadline is 25 November 2013. The administrative deadline is 11 November 2013.

## JURISDICTION

6. For the purposes of the Office of Fair Trading (OFT) investigating a transaction under the provisions of the Enterprise Act 2002 (the Act), the transaction must amount to a relevant merger situation. For this, two or more enterprises must cease to be distinct and either the annual UK turnover associated with the enterprise being acquired must exceed £70 million ('the turnover test'), or at least one quarter of goods or services of any description in the UK, or a substantial part of it should be supplied by the persons by whom the enterprises ceasing to be distinct are carried on ('the share of supply test').<sup>3</sup>
7. The parties submit that the OFT does not have jurisdiction to review the transaction on the basis that the parties supply turn-by-turn navigational applications for mobile devices which are provided for free and hence do not represent an economic activity. Further the parties argue that the transaction has no meaningful connection with the UK.
8. The OFT considers, that as a result of the transaction, Google and Waze have ceased to be distinct enterprises. Under the Act, an enterprise refers to the activities of a business, which includes any undertaking which is carried on for gain or reward.<sup>4</sup> There is no requirement on the realisation of gain or reward from the business

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the user up-to-date about the best route to the destination and is often updated according to changing factors such as traffic and road conditions.

<sup>2</sup> Turnover of US\$[ ]. Exchange rate used UK£1 = US\$1.5935 (HM Revenue & Customs December 2012)

<sup>3</sup> Section 23 of the Act

<sup>4</sup> Section 129 of the Act

activity or that any such gain or reward is current or immediate, only that the activity is carried out for that purpose. Such a requirement would preclude application of the Act to any business activity that is currently loss making or in a stage of investment(s), prior to subsequent (anticipated) return on that investment. Although Waze has [ ] revenue in the UK, it is an enterprise since it earns advertising revenues, [ ] earning advertising revenues in the UK, and its worldwide revenues are not insignificant.<sup>5</sup> The requirements of section 23(2)(a) of the Act are therefore satisfied.

9. The OFT considers that the merged parties have more than 25 per cent share<sup>6</sup> in the supply of turn-by-turn navigation applications for mobile devices in the UK. Section 23(4), and thus 23(2)(b), of the Act requires that more than a quarter of a particular service in the UK should be supplied by the persons by whom the enterprises are carried on.<sup>7</sup> Both parties provide services in the UK by making turn-by-turn navigation applications for mobile devices available to potential users.
10. Consequently, the OFT considers that the share of supply test in section 23 of the Act is met.
11. The OFT therefore believes that it is, or may be the case, that a relevant merger situation has been created, satisfying the test in section 22(1)(a) of the Act.

## **COUNTERFACTUAL**

12. The OFT considers that the effect of the merger compared with the most competitive counterfactual. In practice, the OFT generally adopts the pre-merger conditions of competition as the counterfactual against which to assess the impact of the merger. However, the OFT will assess the merger against an alternative counterfactual where, based on the evidence available to it, there is

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<sup>5</sup> The Act does not require that the gain or reward should be derived from UK customers

<sup>6</sup> Based on data provided by the parties on the number of downloads of turn-by-turn navigation applications in 2012

<sup>7</sup> The act does not require that the services are supplied for gain or reward. This is confirmed by section 128(3)(c) of the Act which states that the supply of services includes the provision of services by making them available to potential users (without any indication that this must be for gain or reward)

a realistic prospect of a counterfactual that is more competitive than prevailing conditions. In this case, the OFT considers that the relevant counterfactual to be Waze remaining as an independent competitor.

## FRAME OF REFERENCE

### Background

13. The parties overlap in the provision of turn-by-turn navigation applications for mobile devices (including smartphones and tablets).
14. Providers of turn-by-turn navigation applications require access to a navigable digital map database. The OFT understands that there are four established owners of navigable digital map databases with the largest geographic coverage. These are TomTom (TeleAtlas),<sup>8</sup> Nokia HERE (Navteq),<sup>9</sup> Google, and OpenStreetMap ('OSM'). In addition, a number of third parties considered Waze was likely to become a credible owner of commercial map data in the future by expanding its coverage and quality of maps.
15. These firms build their databases using different methods and have traditionally used the databases for different purposes:
  - TomTom and Nokia HERE have historically supplied (including for own use) digital map databases to manufacturers of navigation devices for in-car use including portable navigation devices (PNDs). They develop their mapping data using a mix of resources including specialised vehicles. These firms license their map data to a range of third parties, some of whom provide their own mobile applications. For example, in June 2012, Apple licensed mapping data from TomTom while Bing (Microsoft) license mapping data from Nokia.
  - OSM and Waze obtain their map data through crowd-sourcing. OSM provides its data free of charge to third parties while Waze [ ] map data to third parties.

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<sup>8</sup> COMP/M.4854 'TomTom/TeleAtlas'

<sup>9</sup> COMP/M.4942 'Nokia/Navteq'

- Google is a relatively new entrant into this sector and has developed its own mapping database through traditional means of using specialised vehicles; it currently [ ] its map data to third parties. Google does however license a map application programming interface (API) to third parties. This API can be integrated into the third party's own internet site or mobile application and used as a location finder. The Google API does not provide turn-by-turn navigation; this function is only made available by Google on its own products.
16. In addition to these major suppliers of digital mapping data, there are a number of regional providers which focus on particular countries or regions, such as Zenrin (considered the leading provider of mapping products for the Japanese market).<sup>10</sup>
  17. Licensees of digital mapping data can create their own maps with the functionality of turn-by-turn navigation. The up-to-dateness or 'freshness' of the map is considered important by users, both in terms of the accuracy of the directions and also the real-time information regarding incidents on the route such as traffic congestion and alternative routing.
  18. Mobile devices are often pre-loaded with a single mapping application (that is, the application is 'native' to the operating system); for example, Apple Maps on iOS phones and Google Maps on Android phones. Alternative mapping applications can, however, be downloaded by users.
  19. Mobile applications will generally have two customer groups - users and advertisers - with the application intermediating between them as a two-sided platform. Generally, where there is a two-sided platform, there is more value to both sides of having more users.
  20. The OFT considers that, although some suppliers of mobile applications provide their applications for free, these suppliers are actively competing to attract users (and hence advertisers). The OFT notes that an important early stage in the development of mobile

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<sup>10</sup> Berg Insight Report 'Mobile Navigation Services and Devices' 2013

applications, such as those of the parties, is often to build a sufficient user base. This occurs before seeking to monetise the user base. As a result, significant development and investment is made up-front before advertising revenues may be generated in later periods.

## **PRODUCT SCOPE**

21. The parties submit that the relevant market can be broadened from the provision of turn-by-turn navigation applications for mobile devices to cover all products and services that offer some form of map-based or navigational service. These include:
- (a) personal navigation devices (PNDs) and in-car navigation systems
  - (b) maps-based services provided over the internet and all mobile map-based applications.
22. As no substantial competition concerns arise on any reasonable frame of reference affected or potentially affected by the transaction, it was not necessary for the OFT to reach a conclusion on the exact scope of the frame of reference in this respect. However, the degree of constraint represented by other products and services that offer some form of map-based or navigational service will be considered under the competitive assessment.

## **GEOGRAPHIC SCOPE**

23. Both parties offer their turn-by-turn navigation applications on a global basis and the OFT notes that the European Commission in Nokia/Navteq<sup>11</sup> considered the geographic scope for the supply of navigation applications to be at least EEA-wide.
24. However, for the supply of turn-by-turn navigation applications, the OFT considers there is evidence that points to a national geographic market. First, language differences would suggest that the geographic scope is national, particularly with regard to voice-guided

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<sup>11</sup> COMP/M.4942 'Nokia/Navteq'

turn-by-turn directions. One competitor commented that directions need to be provided in the local idiom. Second, payment plans for mobile providers allow for roaming but, as charges are higher than for use within the customer's home territory, this may have the effect of restricting the geographic market to being national in scope on the demand-side. A Google internal document [ ], stating: '[ ]'.<sup>12</sup>

25. The relevant frame of reference is therefore likely to be national in scope. However, as no substantial competition concerns arise on any reasonable frame of reference affected or potentially affected by the transaction, it was not necessary for the OFT to reach a conclusion on the exact scope of the frame of reference in this respect.

## **COMPETITIVE ASSESSMENT**

26. The OFT has examined the possibility that the merger may result in the loss of a growing and innovative competitor in the form of Waze which provided a constraint on Google and might provide an increasingly strong constraint going forward in the supply of turn-by-turn navigation applications for mobile devices.<sup>13</sup>
27. In formulating theories of harm, the OFT considers the extent to which current and future rivalry between the two firms may be removed, with the effect being to reduce the incentives on the parties to invest in further development of their mapping product, to innovate, and to reduce the quality of service offered to users.<sup>14</sup>
28. The OFT has therefore considered whether this merger may dampen Google's incentives to innovate and improve quality as a result of the loss of an innovative rival.

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<sup>12</sup> [ ]

<sup>13</sup> OFT/CC *Mergers Assessment Guidelines* paragraph 5.4.5, albeit in the context of undifferentiated products

<sup>14</sup> OFT/CC *Mergers Assessment Guidelines* paragraph 4.2.3

## UNILATERAL EFFECTS — HORIZONTAL

### Supply of turn-by-turn navigation applications for mobile devices.

#### Download and usage figures

29. The parties provided data for downloads and usage in 2012 for both iOS and Android platforms. The OFT notes that this data is not complete as it does not include data for the Apple Maps application and perhaps others. Apple Maps may, based on its UK sales of smartphones, account for up to 30 per cent of the supply of turn-by-turn applications on mobile devices; the comparable figure for Google is over 50 per cent.<sup>15</sup>
30. The parties raised concerns suggesting that the data may over-estimate Google's share as it is incorrect to equate Google maps with turn-by-turn navigation. The parties argued that users may download Google maps to use one of its other functions such as walking directions or public transport and not turn-by-turn navigation and this may also apply to Apple Maps. Nevertheless, despite the limitations of the data and in the absence of alternative estimates provided by the parties, the OFT considers that the data shows that Google has a strong position in the market (potentially over 50 per cent) and that Waze is one of the most popular applications after Google.
31. However, the OFT considers it important to place this data within the context of the broader body of evidence including the extent of the competitive constraint Waze places on Google. It has therefore considered evidence regarding the functionality of the parties' applications, map quality and coverage, the parties' internal documents and third party views.

#### Closeness of competition

32. The parties submit that their activities in the supply of mapping and navigational services do not overlap as they address different and complementary demands. The parties submit that Waze's application

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<sup>15</sup> [www.bbc.co.uk/news/technology-24034507](http://www.bbc.co.uk/news/technology-24034507)

essentially provides a 'commuter service' in that it identifies the best route between two known locations at a particular time given prevailing traffic, accident and other transient road conditions. In contrast, Google Maps is focused on getting to a new place of interest and identifying places of interest in a particular vicinity. Google Maps also includes additional features such as 'StreetView', points of interest, public transport and walking directions.

33. In considering the closeness of competition between the parties, the OFT notes that both parties' applications are listed under the 'navigation' sections of application stores. A comparison of the products shows that both applications provide turn-by-turn navigation, whether this is on a familiar or unfamiliar route, including point of interest information, traffic information and alternative routes. In addition, Google's research reports<sup>16</sup> state that [ ]; and '[ ]'.<sup>17</sup> Google's consumer research report commented that '[ ]'.<sup>17</sup> The OFT considers that these statements indicate that the parties' applications are frequently used for the same purposes by users.
34. Third parties did consider Waze and Google to be competitors. One competitor considered that the acquisition removed Google's closest current competitor but this view was not generally shared by third parties. The OFT notes that in September 2012, Apple recommended that users download Waze (along with Bing and MapQuest) whilst it improved its own map application.<sup>18</sup>
35. The parties' internal documents show that [ ] to be competitors. In one document, Waze described itself as [ ].<sup>19</sup> Further evidence indicates that Google was [ ] to Waze as a competitor and seeking to [ ] by Waze, for example, [ ].<sup>20</sup>
36. The parties submit that Waze's map coverage is [ ] as Google's. The parties suggest that the coverage of Waze's map is reflected in the fact that Waze was [ ].<sup>21</sup>

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<sup>16</sup> [ ]

<sup>17</sup> [ ]

<sup>18</sup> [www.apple.com/letter-from-tim-cook-on-maps/](http://www.apple.com/letter-from-tim-cook-on-maps/)

<sup>19</sup> 'Google acquisition of Waze Traffic App Sparks OFT Inquiry', The Guardian, 27 August 2013

<sup>20</sup> [ ]

<sup>21</sup> [ ]

37. The OFT notes that Waze considered its data to be [ ]. For example, Google's minutes from a meeting [ ] quote Waze as saying, '[ ]'.<sup>22</sup> The OFT received mixed views from third parties on the quality and coverage of Waze's UK map data but it was generally considered that the data would improve over time (due to Waze's data generating process) rather than currently representing a high standard that would be comparable to Google Maps.
38. In terms of the detail and accuracy of Waze's Maps, Google concluded that in terms of a number of [ ], Waze was, '[ ]'<sup>23</sup> although they were [ ]. Google considered that Waze may have been able to [ ] that it is common for developers to multi-source data. However, although evidence indicates that Waze could achieve [ ], the OFT notes that no analysis was undertaken of UK cities.
39. Therefore, whilst there is evidence to indicate that Google did consider Waze as a competitor and that Waze's map data for some areas, such as some US cities, was of a good standard or could be improved relatively easily, on balance, the evidence does not indicate that Waze's mobile application represented a strong competitive constraint to Google's in the UK. Despite the concerns raised by third parties, the evidence before the OFT does not indicate that Waze had been successful in attracting sufficient users to build a UK map that would currently be considered to have good coverage and detailed accuracy and features compared to that of alternative providers of map data.

#### Waze's future potential

40. The OFT has considered the extent to which Waze could represent a disruptive force in the market going forward and a growing competitive constraint on Google. Specifically, the OFT has considered the extent to which the merger removes the ability of an innovative firm to change the existing market structure and removes the future rivalry between the parties thereby dampening the incentives of Google to innovate and improve product quality.

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<sup>22</sup> [ ]

<sup>23</sup> [ ]

41. In the UK, Waze has witnessed strong growth in a relatively short period of time. Data provided by the parties shows that Waze's registered users increased from a little over [1,000 – 100,000] when it was launched in January 2010 to [500,000 – four million] by August 2013, of which over [50,000 – two million] are active users.
42. The OFT notes that worldwide Waze's growth has been faster than other community applications such as [ ] or [ ]<sup>24</sup> and that Google began [ ] Waze due to its [ ], stating in an internal document, that it was '[ ]'.<sup>25</sup>
43. However, the OFT notes that [ ] by Waze and that its future growth projections [ ]. The parties submit that Google's valuation of Waze [ ].<sup>26</sup> The OFT also notes that Waze's internal documents record [ ]<sup>27</sup> [ ]. In addition, the actual number of downloads recorded by Waze in Europe is [ ] and [ ].
44. The OFT also considered the extent to which Waze's future growth could accelerate on the basis of network effects<sup>28</sup> in mapping and community and also through potential partnership opportunities.
45. Waze was a map building company which used a community based application to develop its maps. Creating a community has demand-side network effects, since users receive more value from a community if they can interact with more users, which in turn attracts more users. Similarly, the OFT was told that mapping is a 'positive feedback business', where the more users there are the more data is created, which improves the experience and attracts yet more users.

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<sup>24</sup> [ ]

<sup>25</sup> [ ]

<sup>26</sup> [ ]

<sup>27</sup> [ ]

<sup>28</sup> Demand-side network effects can occur where the more users who join a particular network, the more valuable the network becomes to those users. Where these exist, there is the potential for the market to 'tip', so whilst there may still be competition from other suppliers, there is one leading supplier, although it is not clear the extent to which this may occur here.

46. The parties submit that Waze does not have a first mover advantage and does not benefit from network effects. The parties state that Waze's current low reach implies that there are a substantial number of smartphone users who do not use Waze.
47. In contrast to the parties' views, a number of third parties considered that Waze had first mover advantage in innovating to create an engaged user community and that this provides it with a competitive advantage, in that it could update its maps quickly and cost effectively. The OFT notes that crowd-sourcing is not unique to Waze; OSM, and to a lesser extent Google, have used crowd-sourcing to develop map data and competing applications are seeking to use crowd-sourcing to obtain traffic data. Further, the parties' internal documents indicate that Waze [ ] in the UK that would [ ].
48. In addition, with regard to traffic information, Waze's model requires a minimum number of registered users for it to have a good understanding of prevailing traffic conditions on major routes at peak commuting times within a given territory. The OFT notes that Waze's internal documents indicate that [ ] in the UK.<sup>29</sup>
49. The OFT does not therefore consider that, on the basis of the evidence, Waze had achieved sufficient scale in the UK to the extent that it was benefitting from significant and insuperable network effects, or that this would lead to an acceleration in its future growth.
50. Partnerships are a potential means through which a company can grow into a significant competitor. The OFT notes that Waze had recently [ ] with Facebook to enable users to chat and meet up with friends driving to the same location. This [ ] could potentially give Waze access to an increased number of users.
51. In addition, Waze's internal documents reveal that it was [ ].<sup>30</sup> The OFT notes that [ ] may have resulted in Waze's application being pre-installed on a smartphone which may have given it access to a

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<sup>29</sup> [ ]

<sup>30</sup> [ ]

greater number of users resulting in it potentially becoming a stronger competitor, although it is unclear over what period of time such a change could have occurred. The OFT notes that [ ] and Waze and it is uncertain whether pre-installation on [ ] devices would have resulted in a substantial increase in active users on Waze's application.

52. In summary, on the basis of the evidence available, the OFT does not consider that the evidence is determinative of Waze becoming a significant competitor in the UK or that it would be a disruptive force in the market.

#### Constraints from other competitors

53. The OFT has considered the extent of the competitive constraint exerted on Google by other competitors. The OFT first considers the competitive constraint represented by providers of turn-by-turn navigation applications, and then considers the constraint from other products and services that offer some form of map-based or navigational service.

#### **Suppliers of turn-by-turn navigation applications for mobile devices**

54. The OFT notes that in the UK there are a range of alternative providers of turn-by-turn navigation applications for mobile devices including Apple (available only on iOS), Navfree, Telenav, Sygic, Co-Pilot, TomTom and Nokia HERE, amongst others.
55. The OFT considers that applications exert different constraints on the parties, depending on a number of factors and most notably on their ability to:
- (a) source quality map data in a sustainable manner
  - (b) access a large user base (either through being pre-installed on a device giving it access to trace data or through crowd-sourcing giving it access to user generated data). This data can then be used to provide 'freshness' to maps and value added information such as real-time traffic and incident data to consumers, and

- (c) develop an appealing user interface and functionality (including, for example, points of interest (POI) and fuel prices).
56. The OFT has grouped competitors on the basis of these factors reflecting the degree of constraint they represent.
57. First, the strongest competitive constraints in the market may be expected from applications which are 'native' and have access to a large user base. Integration of a map application into the operating system creates opportunities for operating system developers to use their own or affiliated services (for example search engines and social networks) to improve the experience of users and it allows for the collection of real-time traffic information.
58. Google Maps considers [ ] to be one of its closest competitors. The parties submit that Apple has an established brand and considerable resources, and is, therefore, considered to be a strong competitive constraint on Google. The OFT notes that Google's internal documents [ ] a range of competitors that include Apple Maps, MapQuest, Bing Maps, Nokia Maps and Waze.<sup>31</sup>
59. Apple Maps licenses map data from TomTom. The application has a strong position as it is preinstalled on all Apple mobile devices and is deeply integrated into the iOS operating system. Whilst Apple Maps is only available on iOS, the platform accounts for almost 30 per cent of smartphone sales in the UK.<sup>32</sup>
60. Although Apple experienced a number of challenges when it launched its map application in 2012, the OFT considers that evidence in the parties' internal documents, together with Apple's sales of smartphones, indicates that Apple Maps represents a strong constraint on Google Maps.<sup>33</sup>

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<sup>31</sup> [ ]

<sup>32</sup> [www.bbc.co.uk/news/technology-24034507](http://www.bbc.co.uk/news/technology-24034507)

<sup>33</sup> Apple Maps is currently only available on the iOS platform and therefore the majority of users will not be able to switch directly between Google Maps and Apple Maps on the same platform. Nevertheless, the OFT considers that Apple Maps acts as a competitive constraint across platforms because any innovations on one platform will extend to other platforms reflecting competition for the handset.

61. The OFT notes that Bing Maps does not currently provide turn-by-turn navigation although Microsoft is [ ] following its partnership with Nokia.<sup>34</sup> Nokia HERE is currently pre-installed on Nokia phones. However, given that iOS and Android account for over 80 per cent of the new sales of smartphones,<sup>35</sup> these alternative providers may be at a competitive disadvantage by having access to a smaller user base than either Google or Apple to update their respective maps.
62. The second group of applications consist of those developed by established PND and in-car navigation manufacturers such as TomTom, Garmin, Navigon and NNG. These firms have access to high-quality maps and additional data (for example POIs and traffic information) and have experience in developing navigation software. Additional mobile users would provide additional real-time traffic data.
63. These applications have been available for several years and yet download figures indicate that they have achieved low penetration on mobile devices. This track record indicates that going forward these providers may be unlikely to grow into significant competitors and therefore are expected to provide less of a competitive constraint on the merged entity than Apple Maps.
64. The third group of competitors are the many application developers which license their map data from TomTom, Nokia Here or OSM. The OFT was told by one third party that, whilst there was a limited number of providers of map data, competition was driven by differentiation between mobile applications. The OFT notes that the majority of these providers currently have lower download and usage figures than Waze, with the exception of Navfree.<sup>36</sup>
65. The OFT therefore considers that Waze is one of a number of providers of turn-by-turn navigation applications for mobile devices in

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<sup>34</sup> [www.bbc.co.uk/news/business-12427680](http://www.bbc.co.uk/news/business-12427680)

<sup>35</sup> [www.bbc.co.uk/news/technology-24034507](http://www.bbc.co.uk/news/technology-24034507)

<sup>36</sup> Navfree is a turn-by-turn navigation application developed by Navmii, a UK based company. Navfree uses map data from OSM and provides live traffic information. Navmii intends to integrate crowd sourced data including traffic information and user generated images for driver assistance.

the UK and that Apple Maps represents a strong competitive constraint on Google Maps.

### **Suppliers of PNDs and in-car navigation systems**

66. The OFT's market testing found that providers of PNDs have faced increased competition from navigation applications on mobile devices, particularly smartphones. However, evidence about switching suggests that substitution between the two is asymmetric: navigation applications on mobile devices are a growing competitive constraint on PNDs and in-car systems but the reverse does not appear to be true, with little substitution observed from navigation applications on mobile devices to PNDs and in-car systems.
67. The parties argue that application developers have responded to innovations in PNDs by introducing improvements to, for example, user interface, voice recognition and route selection. However, in the absence of evidence to support these arguments (for example, internal documents pointing to investment activity or innovations occurring in response to PNDs), the OFT is unable to determine what drove these improvements and, in particular, whether these innovations are in direct response to the competitive constraint from PND innovations.
68. The OFT also notes that there is a significant difference in price between PNDs and in-car systems, and mobile applications. Although the cost of a PND has fallen over recent years, there is still a cost in acquiring a device, estimated in the Berg report to range from 90 euros to 350 euros.<sup>37</sup> In contrast, the parties' turn-by-turn navigation applications can often be accessed within the UK by consumers at no additional cost to their mobile devices as a turn-by-turn navigation application is often pre-loaded on the mobile device or can be downloaded for free from the application store.
69. In summary, the OFT does not consider that PNDs and other forms of navigation solutions currently pose a strong competitive constraint on turn-by-turn applications.

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<sup>37</sup> Parties' response to OFT's RFI request of 4 September 2013

70. However, it may be the case that, in future, providers of these other navigation solutions may pose a greater competitive constraint on the parties due to the shift to in-car navigation solutions. The parties submit that [ ]. This competition may spur innovation and lead to more convergence between these solutions and applications.

**Maps-based services provided over the internet and all mobile map-based applications**

71. Other mobile mapping applications provide users with an interactive map and static directions. However, from speaking to third parties, the OFT understands that the functionality of turn-by-turn navigation is demanded by users of mobile devices. One third party commented that turn-by-turn navigation applications provide an end-to-end user experience that is distinct from other mobile mapping applications. Similarly, mobile applications providing location based services, such as Yelp and Trip Advisor, have a different functionality from that of turn-by-turn navigation applications reflecting a difference in user intent.
72. In addition, map-based services provided over the internet are not generally considered to be substitutes for turn-by-turn mapping applications. Users of mapping products available through personal computers or other stationary devices typically need fewer location-based services or real-time updates to the map such as traffic information.
73. The OFT therefore considers, on the evidence available, that static mobile mapping applications may provide only a limited competitive constraint on the parties' applications.

**Conclusion**

74. In considering the constraints posed by competitors, the OFT considers that Apple Maps represents a close competitor and a strong constraint on Google Maps reflecting the level of competition observed in the smartphone market. On balance, the evidence indicates that the remaining application providers such as TomTom or Navfree currently represent some competitive constraint on Google. In terms of other products and services that offer some form

of map-based or navigational service, the OFT considers that these are likely to provide some, albeit limited, competitive constraint on Google Maps.

## **BARRIERS TO ENTRY AND EXPANSION**

75. In assessing whether entry or expansion may prevent a substantial lessening of competition, the OFT considers whether such entry or expansion would be timely, likely and sufficient.<sup>38</sup>
76. The parties submit that mapping data has become commoditised and, as such, any supplier wishing to offer a mapping product is able to license data and combine data from various sources. During its investigation, the OFT found evidence that developers of navigation applications do multi-source data to develop their own applications.
77. A number of third parties considered that it would be difficult for a new entrant to replicate the success achieved by Waze. One third party commented that the strength of Waze was that it had focused on building such a community where users feel that they are creating something new. It was therefore considered by some third parties that it would be difficult for another entrant to compete with an equivalent model to Waze.
78. However, as noted earlier in the competitive assessment section, Waze had a relatively small presence in the UK. The OFT, therefore, considers there may be opportunities for a competitor to develop its own crowd-sourcing or alternative model. Although the Waze model was successful in attracting users through its gaming aspects, the evidence available does not support the view that Waze had reached a sufficient scale to benefit from such significant network effects that these may be considered insuperable and is therefore unlikely to represent a barrier to entry for a new entrant or the expansion of an existing competitor.
79. However, given the competition assessment above, the OFT has not found it necessary to reach a firm conclusion regarding barriers to entry and expansion.

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<sup>38</sup> OFT/CC *Mergers Assessment Guidelines* paragraph 5.8.3

## **THIRD PARTY VIEWS**

80. The OFT received comments from competitors, advertising customers and licensees of the parties. The OFT also received a number of complaints in response to its 'Invitation to Comment' (ITC). Third party views have been discussed in other parts of the decision where appropriate.
81. A number of competitors raised concerns regarding the transaction on the basis that Waze may have been uniquely positioned regarding its crowd-sourcing model to become an effective competitor against Google Maps either on its own or in partnership with other companies. One competitor considered that the acquisition removed Google's closest competitor while others considered Waze held a rich source of scarce, location-based data.
82. As addressed in detail above, the OFT considers, on the evidence available, that Waze had a limited presence in the UK and that it was not of a sufficient scale to conclude that it would benefit from significant and insuperable network effects to become a substantially stronger competitive constraint in the market. In addition, based on evidence in the parties' internal documents, the OFT considers that Apple Maps is a close competitor of Google Maps' and that it will continue to represent a strong competitive constraint on Google in the future.

## **ASSESSMENT**

83. The parties overlap in the provision of turn-by-turn navigation applications for mobile devices and advertising on these applications.
84. The OFT considered whether the merger would result in the loss of a growing and innovative competitor that provided a constraint on Google in the supply of turn-by-turn navigation applications for mobile devices.
85. The OFT does not consider, on the basis of the available evidence, that the parties are currently close competitors. The parties' internal documents indicate that Google [ ] of competitors, including [ ] as well as [ ]. The OFT considers that Apple Maps is a close competitor

of Google Maps. In particular, Apple represents a strong competitive constraint on Google by virtue of its ability to source quality map data and, given that it is pre-installed on iOS mobile devices, its access to a large user base.

86. The OFT considered the extent to which Waze represented a disruptive force in the market and the extent to which the merger would remove future rivalry between the parties. The OFT notes that Waze's internal documents raise [ ].
87. The OFT was also aware that Waze was seeking to [ ] for Waze's mobile application to be pre-installed on [ ] phone [ ]. However, the OFT considers that it was not certain that, absent the transaction, [ ]. Further, it is unclear whether [ ] would have resulted in a material change in Waze's competitive position.
88. The OFT was also not persuaded that Waze had achieved sufficient scale in building a user community in the UK such that it would benefit from significant and insuperable network effects and accelerated expansion, in particular given Waze's relatively small presence in the UK.
89. The evidence available also does not support the view that Waze had reached a sufficient scale to benefit from network effects which could act as a barrier to entry for a new entrant or the expansion of an existing competitor in the UK. A number of third parties submitted that it would be difficult for a new entrant to replicate the success achieved by Waze. However, although Waze attracts users through its gaming aspects and crowd-sourcing method, the OFT considers that the crowd-sourcing method is not unique to Waze, with some competitors already using this method to improve their maps and obtain real-time traffic information. Waze's position in the UK does not prevent others from successfully developing their own crowd-sourcing model or otherwise entering or expanding in relation to turn-by-turn navigation application for mobile devices.
90. Consequently, the OFT does not believe that it is or may be the case that the merger has resulted or may be expected to result in a substantial lessening of competition within a market or markets in the United Kingdom.

## DECISION

91. This merger will therefore **not be referred** to the Competition Commission under section 22(1) of the Act.

## ENDNOTES

92. With reference to paragraph 29, the parties clarified that, according to the research firm IDC, android-based handsets accounted for over 50 per cent of UK smartphone shipments over the first half of 2013.<sup>39</sup> This clarification has no impact on the OFT's conclusions in this case.

93. With reference to paragraph 30, the parties clarified that, according to the research firm IDC, android-based handsets accounted for over 50 per cent of UK smartphone shipments over the first half of 2013.<sup>40</sup> This clarification has no impact on the OFT's conclusions in this case.

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<sup>39</sup> [www.bbc.co.uk/news/technology-24034507](http://www.bbc.co.uk/news/technology-24034507)

<sup>40</sup> [www.bbc.co.uk/news/technology-24034507](http://www.bbc.co.uk/news/technology-24034507)