

# CRA Competition Memo



## TomTom/Tele Atlas: The Non-Horizontal Merger Guidelines in practice

Following a six month Phase II investigation, the European Commission recently gave unconditional approval to TomTom's acquisition of Tele Atlas, a vertical merger of firms in the satellite navigation industry.<sup>1</sup> TomTom sells personal navigation devices (PNDs), portable devices that use GPS technology to provide turn-by-turn driving directions in real time. TomTom is the largest supplier of PNDs in Europe, competing with Garmin, MiTAC and a number of other firms. Tele Atlas produces navigable digital map databases, a critical input for producers of PNDs, and is the largest map supplier in Europe. There is only one other firm – Navteq – that also offers navigable digital map databases with full European coverage.

Given that this was a purely vertical merger, the focus of the Commission's investigation was naturally on the potential for foreclosure – in this case foreclosure of downstream rivals to TomTom in the supply of PNDs. The Commission examined two possible types of foreclosure – input foreclosure in the downstream PND and navigation software markets, and foreclosure arising from the misuse of confidential information from non-integrated PND suppliers by the merged party to gain share in the downstream market for PNDs.

*TomTom/Tele Atlas* is the Commission's first major decision on a vertical merger since the Commission adopted its *Non-Horizontal Merger Guidelines* in November 2007. As such, it deserves special attention for insights it provides into how the new guidelines are likely to be applied in practice.

### Non-Horizontal Merger Guidelines

The Commission's *Non-Horizontal Merger Guidelines* state that a merger results in foreclosure when "actual or potential rivals' access to supplies or markets is hampered or eliminated as a result of the merger, thereby reducing these companies' ability and incentive to compete".<sup>2</sup> Foreclosure is regarded as anti-competitive where, "as a result of the merger, the merging companies, and possibly also some of its competitors, are able to profitably increase the price charged to consumers".<sup>3</sup>

This emphasis in the new guidelines on prices charged to consumers and the distinction between foreclosure and *anti-competitive* foreclosure, where foreclosure is considered anti-competitive only if there is an adverse effect on consumers, promises an important departure

from the Commission's approach in the not too distant past in non-horizontal cases such as *GE/Honeywell*.

### Input foreclosure concerns

The Commission in *TomTom/Tele Atlas* examined the likelihood of both a total input foreclosure strategy (i.e. refusing to supply non-integrated PND suppliers with access to the Tele Atlas maps) and a partial input foreclosure strategy (i.e. increasing prices or providing lower quality maps and/or delayed updates to non-integrated PND suppliers).

Based on a critical loss-type analysis and estimates of downstream price elasticities, the Commission determined that a total foreclosure strategy would be unprofitable for the merged entity, even if Navteq (the only other supplier of map databases) were to respond by raising its prices to non-integrated suppliers of PNDs by several hundred percent. This is primarily because map prices represent a small portion (less than 10%) of the total PND price, meaning that even a large upstream price increase would have little impact on downstream prices and thus on the merged entity's competitive positioning in the downstream market. The Commission's conclusion was supported by simulation models submitted by CRA and other economists for the merging parties; these models computed equilibrium prices in a model of Bertrand competition with differentiated products and showed that a total input foreclosure strategy would be unprofitable even if Navteq increased prices by 100%.<sup>4</sup>

The Commission also found that a partial input foreclosure strategy would be unprofitable for the merged entity.<sup>5</sup> The Commission recognised that the merged firm would have *some* incentive to raise the price of access to Tele Atlas maps to non-integrated suppliers of PNDs relative to the pre-merger price charged by Tele Atlas. Higher prices for access to Tele Atlas maps would put non-integrated PND suppliers at somewhat of a competitive disadvantage and would cause some shift in downstream market share to TomTom. The Commission, however, recognised that this partial foreclosure / "raising rivals' costs" incentive was likely to be small under the circumstances of this case.

In explaining why it believed that partial foreclosure was not a concern, the Commission noted that the costs of switching map suppliers are relatively low, implying that Tele Atlas would likely lose significant sales to Navteq if it

<sup>1</sup> Tele Atlas was advised throughout the merger investigations in Europe and the US by a team of CRA economists that included Steve Salop, Tom Overstreet, Sharon Pang and David Reitman.

<sup>2</sup> Commission Decision of 14 May 2008 declaring a concentration to be compatible with the common market and the EEA Agreement (Case No COMP/M.4854 TOMTOM/TELE ATLAS) ("Commission Decision"), pp. 41-42.

<sup>3</sup> Commission Decision, p. 42.

<sup>4</sup> Commission Decision, pp. 48-49. Sophisticated economic modelling of this type is becoming increasingly common in competition analysis in Europe and reflects the positive influence of the Chief Economist's Office on the level of economic discourse.

<sup>5</sup> Commission Decision, pp. 49-50.

increased prices or degraded map quality. The Commission conducted a “simple profit test” and found that any price increase that would have a non-negligible impact on the downstream market would not be profitable for the merged entity, as the downstream gains would not be sufficient to compensate the upstream losses. This finding held under a wide range of alternative assumptions concerning the pass-through rate, the upstream and downstream price elasticities and the share of the map database cost in the total price.

The Commission’s conclusions were supported by models submitted by the parties’ economic experts, which found that any attempt to raise rivals’ costs would likely be more than offset by merger-specific efficiencies (e.g. elimination of double marginalisation).

### Confidentiality concerns

The Commission also evaluated the likelihood that the merged entity would use commercially sensitive information regarding the activity of PND rivals gathered by Tele Atlas in its normal course of business to enable TomTom to gain an advantage in the downstream market for PNDs. This can be viewed as another form of foreclosure: in order to gain share in the downstream market for PNDs, the merged entity would engage in conduct in the upstream market for navigable maps (misuse of commercially sensitive information) that would sacrifice sales in the upstream market (because non-integrated PND suppliers would have an incentive to switch to Navteq).

The Commission found that customers of Tele Atlas currently share very little information of competitive value with Tele Atlas, and the amount of information shared could be further reduced. For this reason and because of the ease with which non-integrated PND suppliers could switch to Navteq, the Commission concluded that the merged entity would have incentives to mitigate concerns about confidential information and that concerns about misuse were unwarranted.

### Efficiencies

Because the Commission concluded that anti-competitive foreclosure was unlikely to be a profitable strategy for the merged firm, it was not necessary for the Commission to conduct a close analysis of the merger efficiencies claimed by the parties. Even so, the decision contains an important discussion of double marginalisation that ideally will inform the analysis of future vertical mergers.<sup>6</sup>

Elimination of double marginalisation is one of the benefits of vertical mergers recognised in the *Non-Horizontal Merger Guidelines*. In a vertical merger involving firms in markets that are not perfectly competitive, pre-merger prices in the upstream (input) market will exceed marginal cost, and the downstream firms will then apply their own mark-up on this “inflated” input cost. A vertically integrated firm in contrast will have an incentive to transfer the upstream input to its

downstream affiliate at marginal cost – providing the downstream firm with an incentive to lower prices and expand output, but also increasing the combined profits of the merging firms.

This is a standard point from the economics of vertical integration and it is useful that this point is emphasised in both the *Non-Horizontal Merger Guidelines* and *TomTom/Tele Atlas*. The decision however goes further than this standard point by also considering whether elimination of double marginalisation should be regarded as a merger-specific efficiency. The Commission recognises that, in theory, non-integrated firms could employ contracts with non-linear prices that would largely avoid the problems of double marginalisation. The Commission analysed the likelihood of this occurring in the satellite navigation industry by examining Tele Atlas’ contracts for evidence of non-linear pricing in which marginal prices approximated marginal cost. While it found evidence of volume discounts, it concluded that Tele Atlas’ marginal prices were still greater than marginal cost (which implies that there was still scope for the merger to eliminate double marginalisation).

### Conclusion

The Commission’s recently adopted *Non-Horizontal Merger Guidelines* make clear that careful economic analysis of the ability and incentive to foreclose is essential in the review of vertical mergers in Europe. *TomTom/Tele Atlas* confirms that economic analysis of these issues is central and that economic modelling can play an important role.

Shortly after the *TomTom/Tele Atlas* decision, the Commission unconditionally cleared a second vertical merger in the satellite navigation industry, between Navteq (Tele Atlas’ only competitor in Europe) and Nokia, a mobile handset manufacturer active in the development of navigation software for mobile phones. Though the Commission’s decision in *Nokia/Navteq* has not yet been published, the Commission’s press release suggests that the Commission’s reasoning was very similar to its reasoning in *TomTom/Tele Atlas*.<sup>7</sup>

As a result of these two mergers, both of the suppliers of digital maps in Europe are now vertically integrated and there are no non-integrated upstream alternatives available to non-integrated downstream suppliers of PNDs and navigation software. There was a time when one would not have been surprised if the Commission had objected to a change in industry structure of this nature and magnitude. The fact that the Commission has approved both *TomTom/Tele Atlas* and *Nokia/Navteq* provides further and powerful evidence that one can expect decisions in Europe on vertical mergers under the new *Non-Horizontal Merger Guidelines* to be effects-based decisions founded on careful economic analysis.

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<sup>6</sup> Commission Decision, pp. 52-53.

<sup>7</sup> Commission Press Release IP/08/1085, *Commission clears Nokia’s proposed acquisition of digital map provider NAVTEQ*, 2 July 2008 (Case No COMP/M.4942 NOKIA/NAVTEQ).