

The Design Business Association Design Effectiveness Awards 2006



Project Title **tomtom GO**

Category **Product**
Sub Category **Consumer**

Client Company **tomtom**
Design Consultancy **therefore**

Current Date **7 June 2006**

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Section 1: Executive Summary (299 words)

Prior to 2003, TomTom was primarily active as a navigation software and digitized map supplier. They provided maps on CDs with software and GPS receivers in a one-box solution, putting satellite navigation functionality onto PDA's. TomTom realised that with these solutions they would never reach the mainstream consumer market where they predicted the volume sales would be. Navigation is a universal need but it should be easy and accessible in order for the average person to throw away their paper map.

So the main design objective was to realise democratisation of car navigation and put navigation into the hands of a much larger consumer base. The driver was the key target and not car buyers (new car sales only represent $\pm 7\%$ of the car market).

TomTom GO was launched in a market traditionally dominated by complex, expensive, built-in car navigation systems and difficult to install software solutions.

Its design managed to position TomTom GO not as just another technical product, but as an easy, smart and accessible consumer solution. This caused a market shift; from built-in navigation systems for premium cars and technical and hard-to-install software solutions for PDAs to a consumer solution for everyone regularly on the move. TomTom GO was successful in meeting all its objectives; sometimes reaching even well beyond them.



Thanks to its design and the accompanying characteristics, the GO has become the European market leader.

Brand awareness is high in all countries, making TomTom GO the best known car navigation product in Europe.

TomTom GO created a new standard in the category and made the GO a proud European market leader, its approach and design being copied by many competitors.

We could say TomTom GO created a whole new market with a consumer value of €2 billion in Europe in less than two years.

Section 2: Project Overview (491 words)

2.1 Outline of project brief

The main objective was to realise democratisation of car navigation. The design brief was therefore to develop an all-in-one, easy to use device that provides an “out-of-the-box” experience. This meant a car-based device that integrated the elements in a single product at an affordable price with potential appeal to a much broader ‘everyman’ consumer base.

The brief included the following requirements:

- Strong, neat and easily connected (where req., e.g. DC power);
- Portable, self-contained unit (which can operate without dock);
- Simple finger operated interface;
- Internal GPS receiver;
- Internal antenna;
- Internal speaker;
- Cradle or dock;
- No hard buttons on the interface;
- Neutral friendly design – to blend into car interior design.

2.2 Description

TomTom GO is an all-in-one portable navigation system. TomTom GO characterises itself through its user friendliness:

- Easy to install, direct ready to use and no manual necessary;
- Easy to use touchscreen with intuitive interface;
- Crystal-clear 3D navigation view;
- Clear and easy-to-follow instructions via internal speaker;
- Easy to fit in every car because of the windscreen mount;
- Easy to move from one car to another;
- Affordable.

Further information available on: www.tomtom.com

2.3 Overview of the market

The initial market was characterised by low penetration and dominated by expensive and/or complicated systems.

2.4 Project launch date

TomTom GO was introduced at CeBIT in March 2004 and was available in shops from May 2004.

2.5 Size of design budget

Unavailable.

2.6 Outline of design solution

Small, portable device featuring the following elements:

➤ Software

The device uses TomTom's award-winning, easy-to-use software for which the company has become famous. Features an intuitive user interface, clear 3D navigation view and many powerful features.

➤ Screen

The PDA products typically presented maps in portrait mode. It was felt that the on-screen experience would be enhanced with a landscape format LCD module and this set the specification for a 3.5 inch horizontally oriented touch screen display.

➤ Speaker

The integrated speaker had to provide a quality of sound reproduction to ensure clarity of voice instructions above the ambient environmental sounds. Because of the size and position of the screen the speaker faced backwards. To ensure the required performance, an uncompromising 2" diameter speaker was selected.

➤ **Antenna**

It was preferred that the internal antenna should not have to be deployed to achieve the necessary 'line-of-sight' to available satellites. This meant that its placement within the housing must maximize the reception. The optimum position was to place the antenna on a ground plane facing up through the top of the product.

➤ **Internal layout**

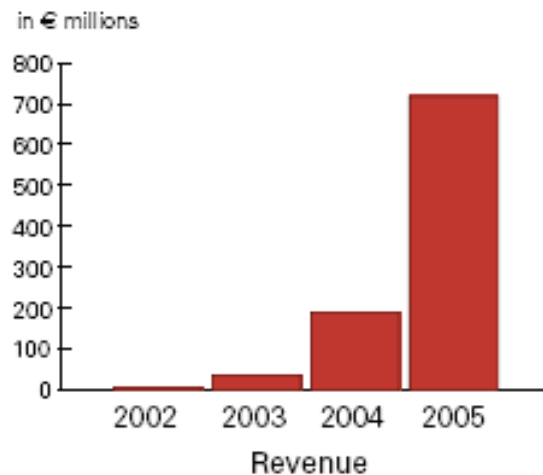
The location of the critical elements of screen, speaker and antenna, along with the battery cell and PCB/connectors led to the creation of the soft rounded form to ease portability.

➤ **Docking/cradle**

The desire to maximize the customer experience of a plug and play device moved the development towards a windscreen mounted cradle design.

Section 3: Summary of results

3.1 Increase in sales



Source: **TomTom annual report 2005**

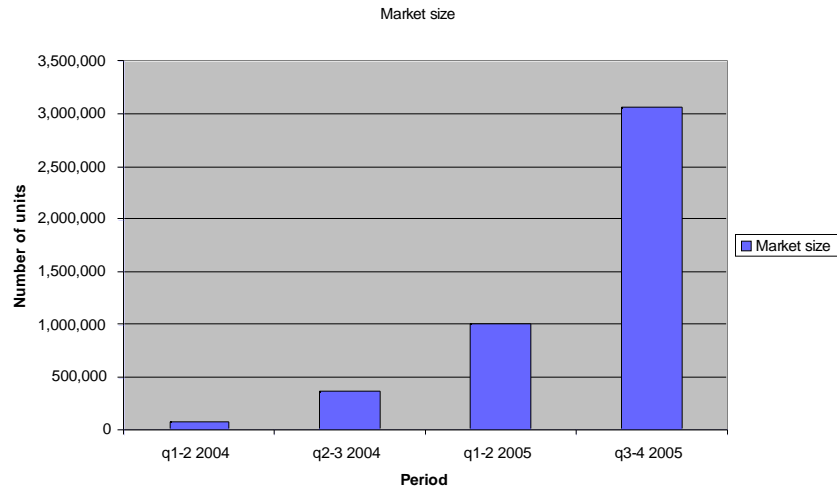
As indicated by the above graph, after the launch of TomTom GO our sales increased dramatically.

Total revenues increased from €192M in 2004 to €720M in 2005, which is an increase of 275%.

In 2004, 66.3% of these revenues can be attributed to GO sales (and incidentally, GO only started selling in May).

In 2005, GO sales were responsible for 89.7% of total revenue.

3.2 Increase in market size

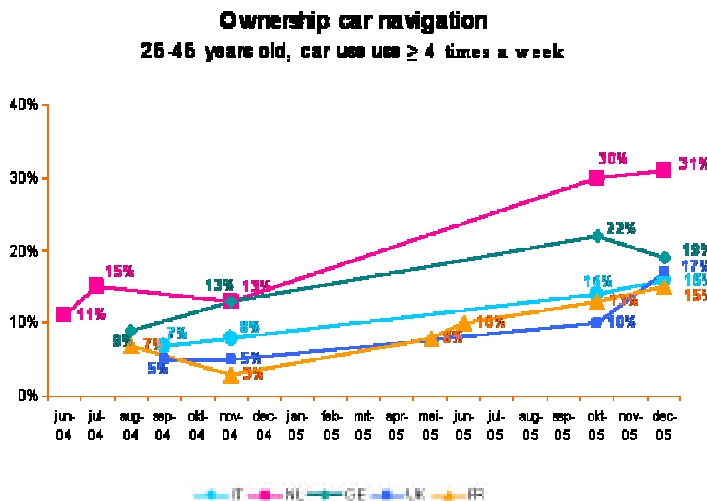


Source: **Canalys Mobile Navigation Analysis EMEA, May 2006**

This graph clearly demonstrates the growth of the portable car navigation market in Europe.

Since the introduction of the TomTom GO the market grew from a marginal amount of units to a market approaching over 3M sold units.

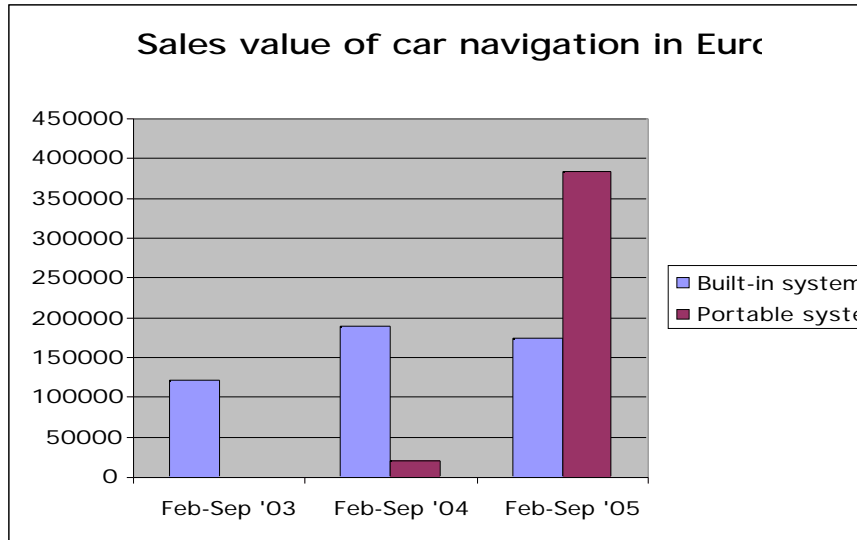
3.3 Increase in market penetration



Source: **Mediaedge:cia, tracking research December 2005**

This graph demonstrates that car navigation ownership doubled in all key countries between the introduction of TomTom GO and end 2005.

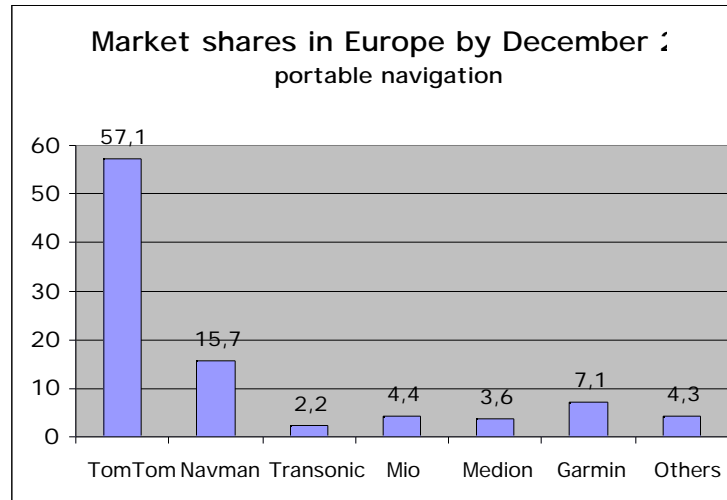
The fact that this growth of the car navigation category is due to the rise of portable systems as opposed to built-in systems is shown in the following graph.



Source: **GfK Marketing Services, November 2005**

The GfK Marketing Services graph demonstrates the growth of portable car navigation systems in Europe, surpassing the built-in systems by far in just one year. The market share of TomTom GO, given later on in this document, shows that the increase of the penetration is at the profit of TomTom GO.

3.4 Increase in market share



Source: **GfK Marketing services, January 2006**

The graph shows that since the introduction of the TomTom GO not only the market grew exponentially, but TomTom's share in this market also grew dramatically resulting in a 57.1% market share in the portable navigation market at the end of 2005.

3.5 Product reviews & awards

TomTom has received many awards and positive reviews for the TomTom GO. One quote sums up the reception the GO has had:

Top Gear Magazine, May 2005 (circulation 144.5K)

"Not being too keen on endorsing products I'm wary of saying this – but having used it for a month I doubt that I'll ever order a car with satnav again, there's just no point now.

You can swap it between cars, put it in line of sight, carry it walking if you want, it's brilliant. The glorious thing about it is that it's simple and intuitive. The features that you need are accessible without needing to apply a higher maths degree.

It's the best thing to come out of Holland since the Venga Boys."

For more quotes and awards, see Appendix (section 5).

Section 4: Additional information

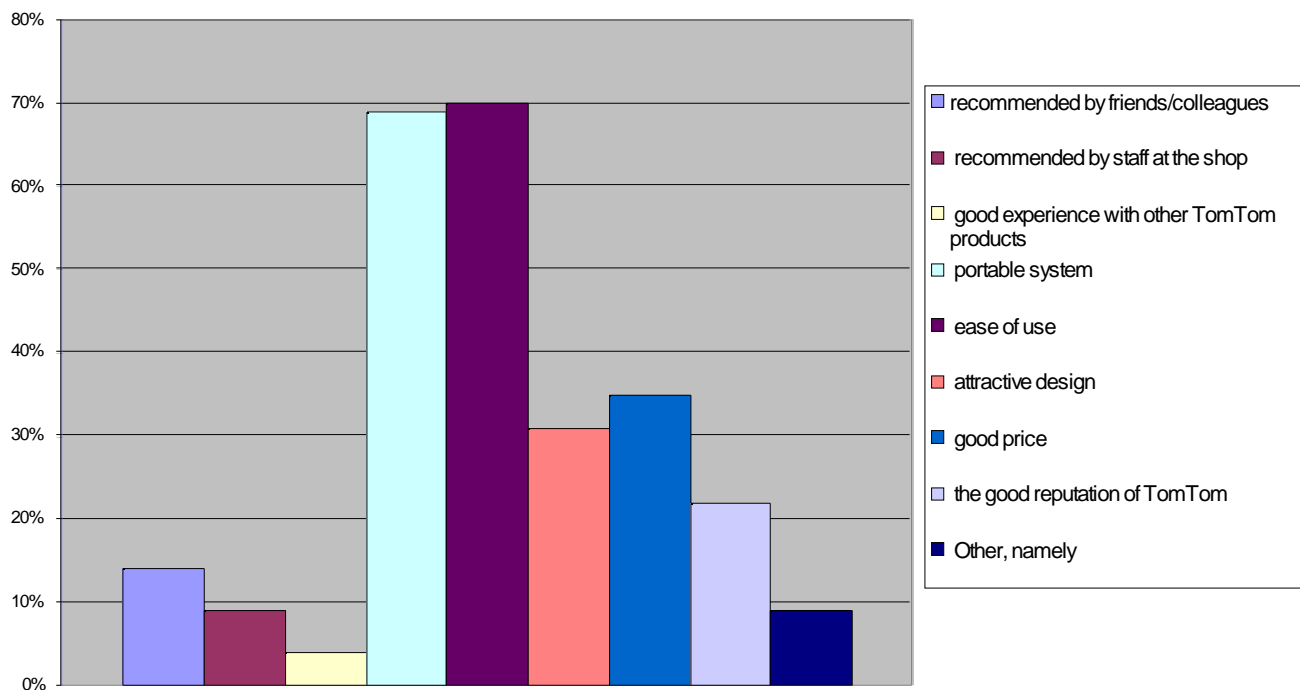
4.1 Research resources

- TomTom Annual report 2005
- Canalys Mobile Navigation Analysis EMEA service, May 2006
- GfK Marketing services, November 2005
- GfK Marketing services, January 2006
- BrandDoctors TomTom GO user study, October 2004
- Mediaedge:cia tracking research, December 2005

4.2 Design isolated from marketing mix

The number one design goal was to have something people could buy, unwrap, and navigate home from the shop. With the TomTom GO, the effect of its design is integral to the product but can be isolated from the marketing mix by looking at the supporting reviews, awards and endorsements. In these, the TomTom GO has been highlighted and commended as the best product because of all the characteristics of its design (ease of use, portability, plug & go).

Reasons for buying TomTom GO



Source: **BrandDoctors, October 2004**

Furthermore, in October 2004, market research company BrandDoctors held a large consumer survey which, as indicated by the previous graph, shows most people bought the device because of its ease of use, portability, attractive design and price. These are all characteristics of the way the product has been designed.

4.3 Design approach and investment

TomTom aims to produce products that share qualities of innovative design, simplicity of use, fitness for purpose, charm and affordability. To ensure this, TomTom has built a strong relationship with **therefore product designers**, who helped design the TomTom GO.



therefore is a world-leading design company with substantial handheld electronics design experience and has worked with TomTom since their first product design creation.

In January 2006, TomTom even further strengthened this bond by appointing **therefore** Technical Director and founder Martin Riddiford as Design Director of TomTom. This clearly indicates the importance of design to TomTom and its products and will even further enable TomTom to bring innovatively designed products to the marketplace.

Section 5: Appendix

UK Press

Financial Times, August 2004 (41K circulation)

TomTom has put a great deal of thought into the design of this system so you can, for example, set the touch screen for left handed use, change map colors and invert the screen if the unit is mounted at an awkward angle.

PC Retail, August 2004 (12K circulation)

Rather than incorporating some sort of holding bracket system, the TomTom GO comes with a simple windscreen mount and a SD memory card with UK maps pre-loaded.

Stuff Magazine, September 2004 (circulation 441K)

Winner portable navigation test existing of Navman Pin, Route 66 & TomTom.

PCW, September 2004 (128K circulation)

With a stylish, uncomplicated design, the TomTom GO doesn't take long to get used to. The TomTom GO is a pleasure to use.

Boys Toys, October 2004 (circulation 50K)

Overall score 4.5 points out of 5 points. An economical and effective solution to car navigation.

The Sunday Times, October 31st 2004 (circulation 1.344M)

I had hours of fun deliberately getting lost and unerringly finding my way back again. This is an indispensable tool for people who have to travel frequently on business.

www.pcmag.com, November 16th 2004

The TomTom GO is the first device to deliver ease of use, accuracy, a great display, and superior sound rolled up into one sleek package.

Observer Magazine, December 19th 2004 (circulation 453K)

Using TomTom GO allows you to travel through the city with a minimum of hassle and a maximum of speed. TomTom GO is easy to programme, easy to install and easy to use. Just plug in and go.

Evening Telegraph & Post, January 7th 2005 (circulation 50K)

Don't let the bargain price, stylish looks and easy set-up fool you. This is a serious capable and well-designed satellite navigation system.

Personal Computer World, January 2005 (circulation 101K)

While reflections and glare are unavoidable in certain circumstances, the GO screen was better at minimizing them thanks to an anti-glare coating. All in all, it's an extremely good effort from TomTom.

PCW recommends the TomTom GO as the best in-car technology.

Personal Computer World, January 2005 (circulation 101K)

The TomTom GO received a nominee award 2005 by PCW. The TomTom GO is a great example of how to make advanced technology easy to use.

Volkswagen Driver, February 1st 2005 (circulation 25K)

We've tested a number of in-car GPS navigation systems previously in the pages of Volkswagen driver, most of them expensive and sophisticated scientific instruments, but none has impressed us as much as TomTom GO. It not only looks cute but is endearingly simple and straightforward to use.

What Mobile, April 1st 2005 (circulation 19K)

An attractive, sleek and compact all-in-one solution that's incredibly simple to use. Features voice prompts and great 3D mapping. The most innovative SatNav product yet.

Jaguar World, April 2005

Overall winner of the portable navigation systems contest. The stylish appearance, good performance, high quality finish, supplied accessories and ability to download new software combine to form an excellent package for those wanting a general purpose SatNav solution.

4 X 4 Mart, April 2005 (circulation 35K)

The screen was easy to read and touch sensitive areas were easy to use - there was no doubt about its get-up-and-go ability and that's a great start! It just feels friendly! Being able to use it straight away however, means that it grows quickly. For the average user, TomTom will be more than adequate.

General Practitioner, April 22nd 2005 (circulation 40.5K)

Finally, my choice was made easy after a trial run with the TomTom. I am pleased to say that it is the best bit of technology I have bought in ages. What's more, since receiving it, getting from A to B is an absolute doddle.

Top Gear Magazine, May 2005 (circulation 144.5K)

Not being too keen on endorsing products I'm wary of saying this – but having used it for a month I doubt that I'll ever order a car with satnav again, there's just no point now. You can swap it between cars, put it in line of sight, carry it walking if you want, it's brilliant. The glorious thing about it is that it's simple and intuitive. The features that you need are accessible without needing to apply a higher maths degree.

It's the best thing to come out of Holland since the Venga Boys.

T3, May 2005 (circulation 54K)

Refresh rate and vehicle orientation was also the best on test, with the unit tracking every twist and turn of the road.