



# Personal Navigation Devices

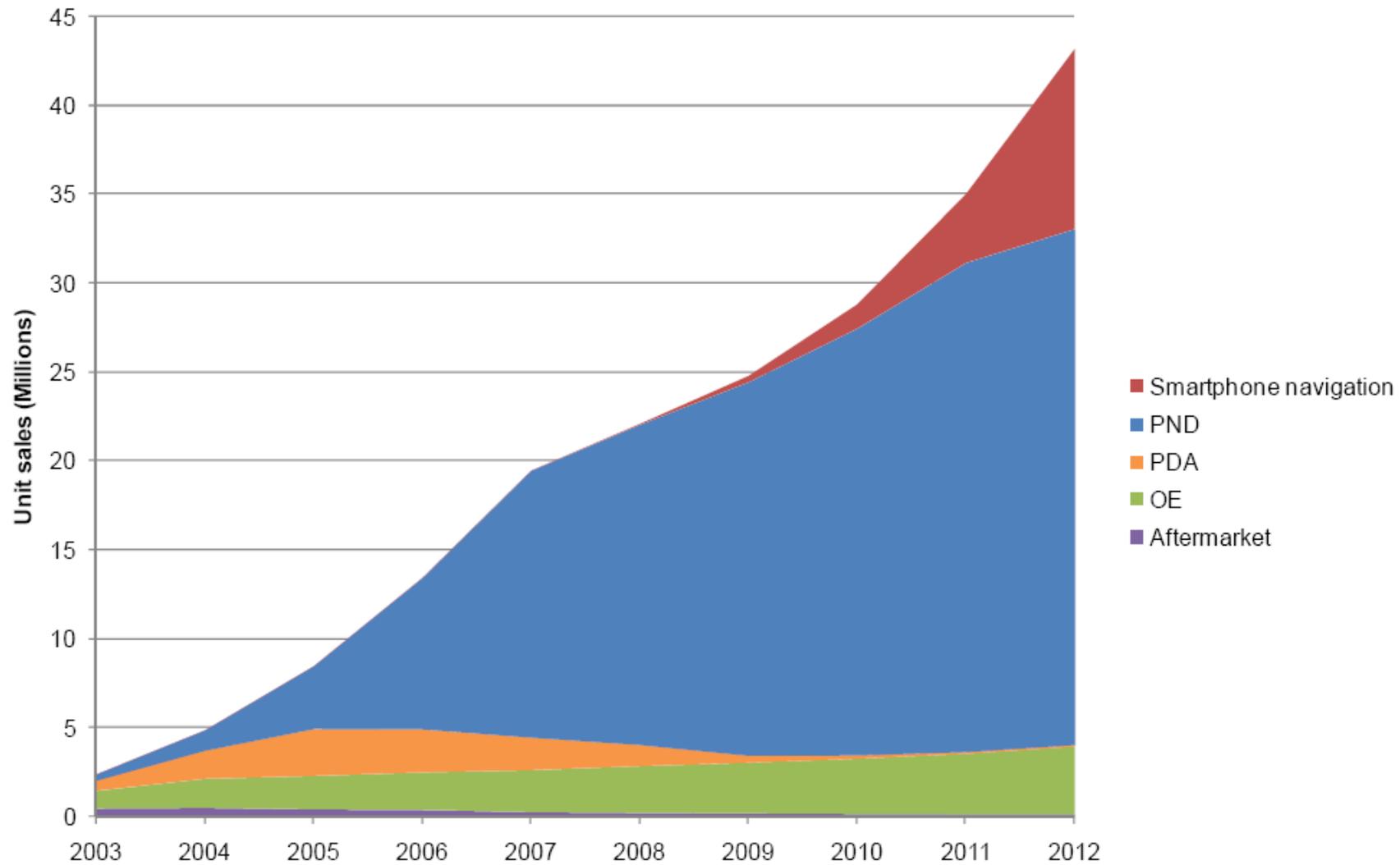
Wolfgang Reelitz  
Münchner Kreis 12. Juni 2008

# TomTom in a nutshell

## World's leading provider of personal navigation devices

- Public Company (Euronext Amsterdam)
  - Founded 1991
  - Products sold in 30 countries worldwide
- 9.6 million products shipped in 2007
- € 1.74 billion TO
- 1600 employees
- Market share:
  - Europe 50%
  - USA 25%

# Overall market for navigation in Europe



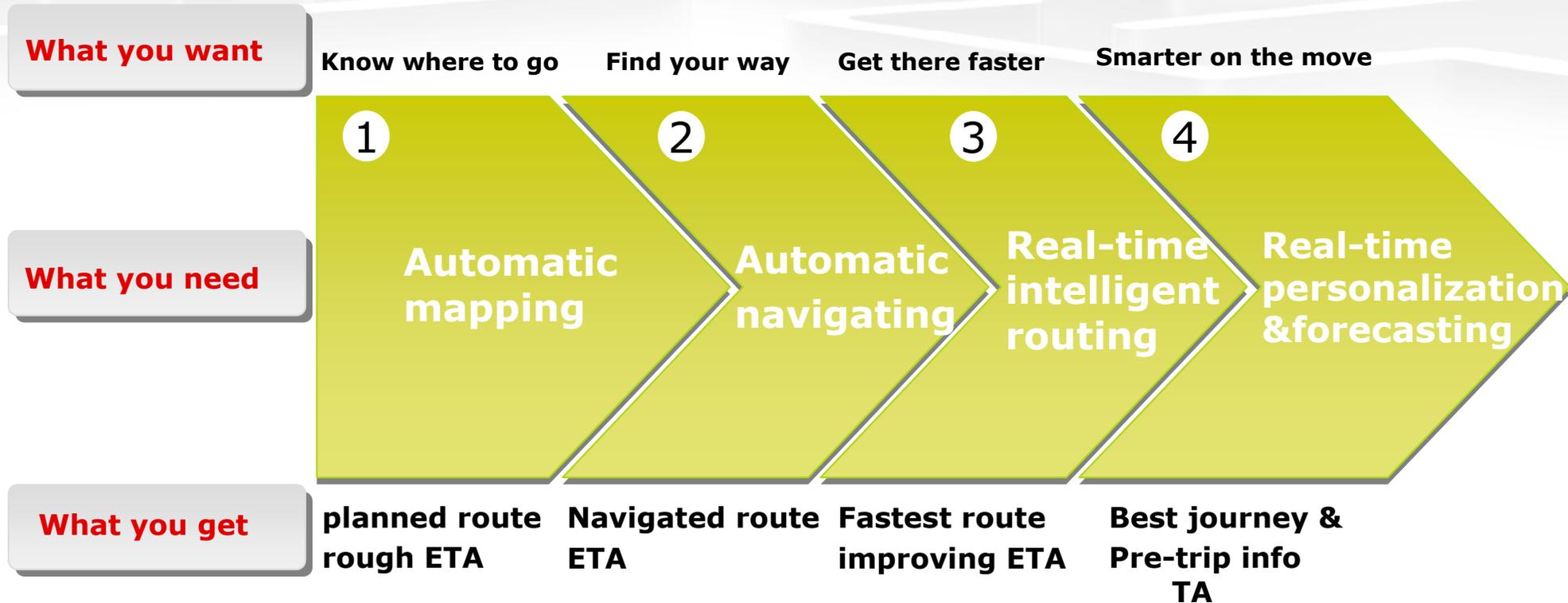
Source: SBD study "Navigating the route to success Part 1 ~ Market trends for navigation in Europe" December 2007

# Average costs of embedded navigation



Source: SBD study "Navigating the route to success Part 1 ~ Market trends for navigation in Europe" December 2007

# Leading personal navigation with innovation



**From don't-get-lost device to true travel companion**

**TOMTOM** 

**TOMTOM** 

# Taking navigation to the next level

- Best navigation experience
  - Best routing with IQ routes
  - Best maps with Map Share
  - Best traffic with HD Traffic
- Ease of use
- Safety
- Connectivity



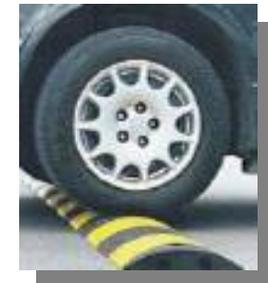
# IQ Routes Brings the **Best Routes**

## Drive like a local with IQ Routes!

- Who knows the best route?
- Locals know ...
  - slow traffic lights, stop signs, speed bumps ...
  - what happens near schools, shopping centers, railway crossings ...
  - how fast different routes are in reality!

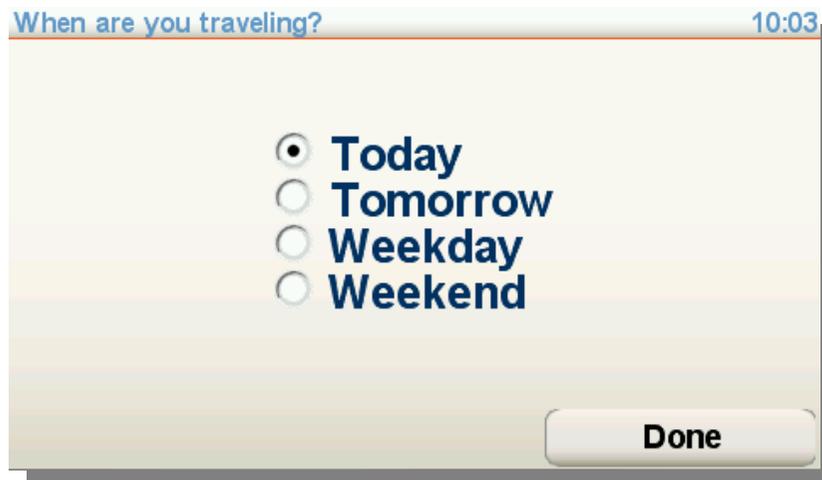
**... Everyone knows that traffic on Sunday is different to traffic on Monday, but...**

- Can a PND know this?



# IQ Routes

- IQ Routes™ offers:
  - Route calculation based on **actual measured speeds**
  - **Weekday /weekend dependent**
  - Always providing the **smartest route**
  - And a **reliable** Expected Time of Arrival
  - Saving you time, money, fuel and frustration!
- Current day default in “Navigate to”
- Day selection option in “Advanced Planning”



New option in  
Advanced route planning

# Best Routes

- The PND to date:
  - Using **average** road speeds **estimated** by **road type**

- Can we measure **real** speed?
  - Europe has 41.000.000 pieces of road ...

Highway:	83.1 kph
Regional road:	62.7 kph
Street within city :	32.3 kph

*Examples speed/type*

- TomTom can!
  - TomTom measuring **real speeds** for almost 2 years
  - The largest navigation community contributing:
    - 500 million speed measurements per day
    - 100 billion speed measurements to date!
    - by customers driving 7 billion kilometers
    - and visiting every spot 1000 times

## Question

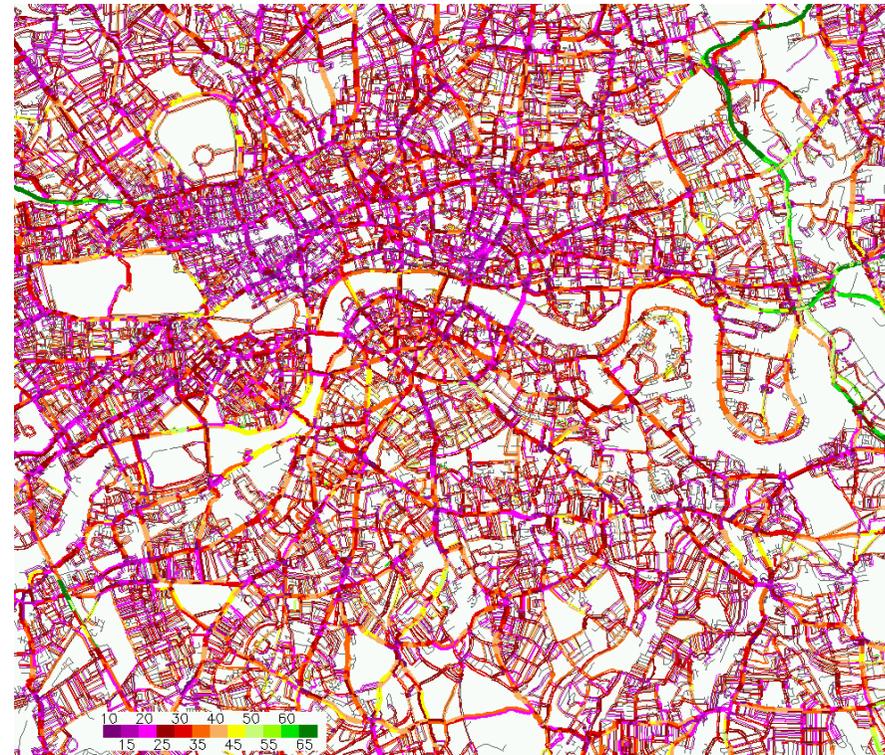
TomTom would like to gather anonymous statistical data to improve your map quality and navigation experience. We would retrieve this data whenever you connect your TomTom GO 700 to your computer. It will not be noticeable, will not cost anything, and will be completely anonymous. Will you allow us to retrieve this data?

# Static Profiles on typical weekdays

TeleAtlas map



TomTom/TA map



# The **Best** Routes: Through Paris: West (A14) – East (A4)

Standard  
maps



Fastest route via Boulevard  
Périphérique (South)

IQR maps



2 minutes faster

IQR maps



Fastest route via Avenue des Champs  
Elysees

# Best Maps advantage rests on 4 pillars

## Best Maps

**Latest  
Maps  
Pre-installed**

**Latest  
Maps  
Guaranteed**

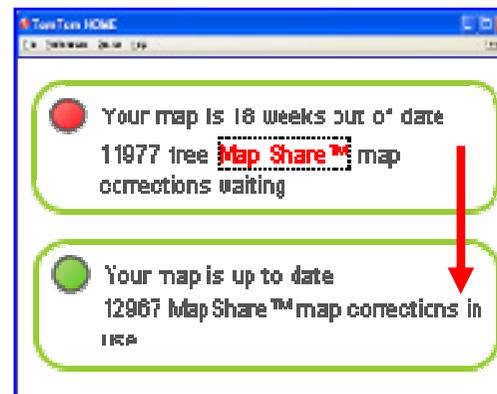
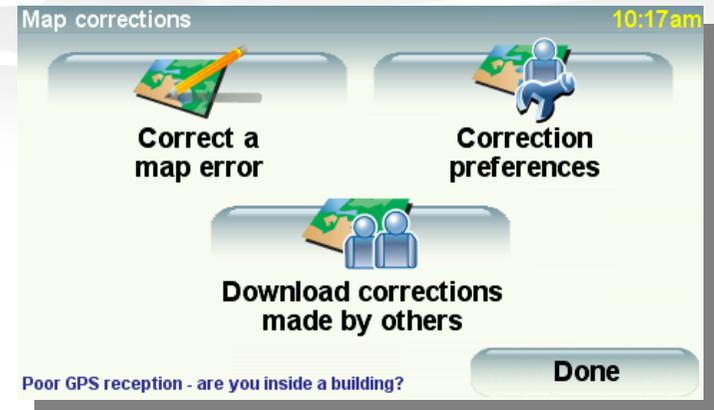
**Up-to-date  
Maps  
via  
Map Share™**

**Upgradeable  
Maps  
via  
Map Shop**

# Best Maps: an update on Map Share™

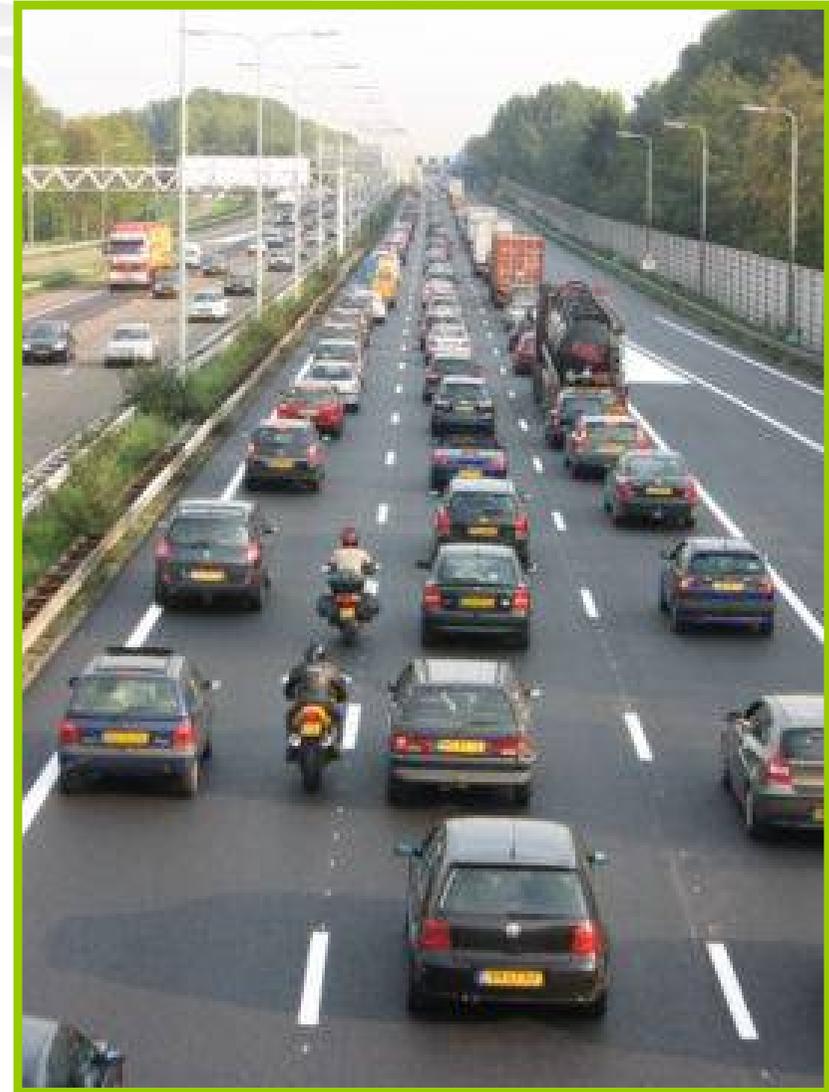
**Map Share™ allows users to immediately fix up their own maps and share corrections with others**

- >1.5 mil improvements Mar 2008 (16,000 users a day joining)
  - 66% of the corrections have an immediate effect on devices
- TomTom has 20 million users of which the vast majority are potential Map Share users
- Corrections are available free to all customers via TomTom HOME



# Traffic: problem

- Drivers looking for traffic information
  - 32% before their trips
  - On the web
  - 49% during their trips
- Need for better, faster accurate traffic information.



# Problem: Not Knowing What to Expect



# Access TomTom traffic info anywhere



# Up to 10 Times More Roads Covered in NL

**10 X**

TomTom  
HD Traffic



**Road type  
In NL**

**Total  
km's**

**Coverage  
RDS-TMC**

**Coverage  
TomTom  
HD Traffic**

**Motorways**

**5.300**

**45%**

**100%**

**Secondary  
roads**

**17.000**

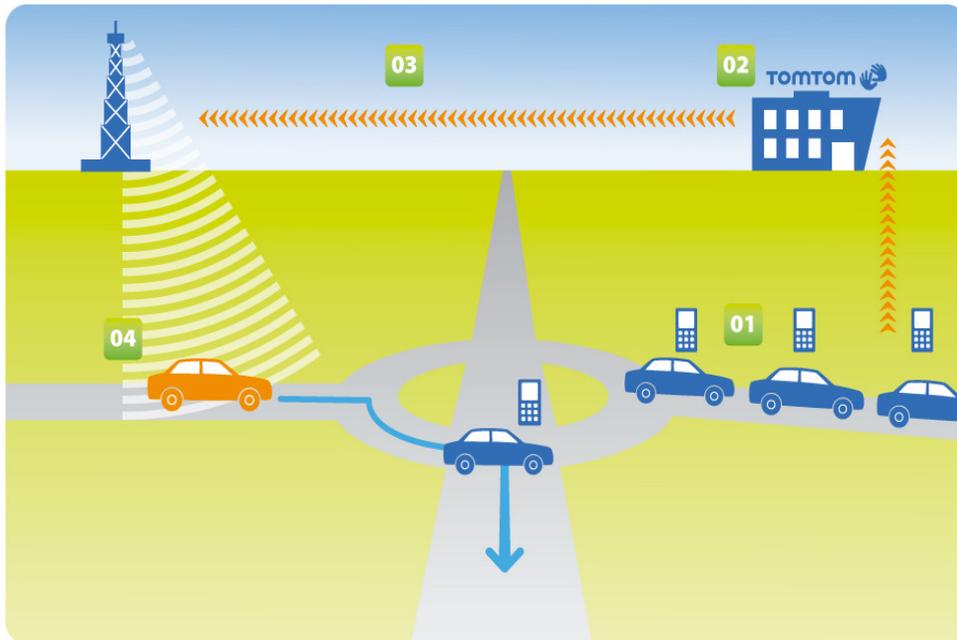
**0%**

**100%**

Note: no traffic information service covers local roads at this moment

# How does HD Traffic work?

HD Traffic combines the best traffic data from multiple sources. This includes the Vodafone mobile phone network as a new information source.



# TomTom HOME



## TomTom HOME

This is the main menu of TomTom HOME. Page 1 of 2



Add Maps, Traffic,  
Voices etc.

Help



Read the manual for my  
GO

Help



Operate my GO

Help



Update my GO

Help



Get free map  
corrections from  
Map Share™

Help



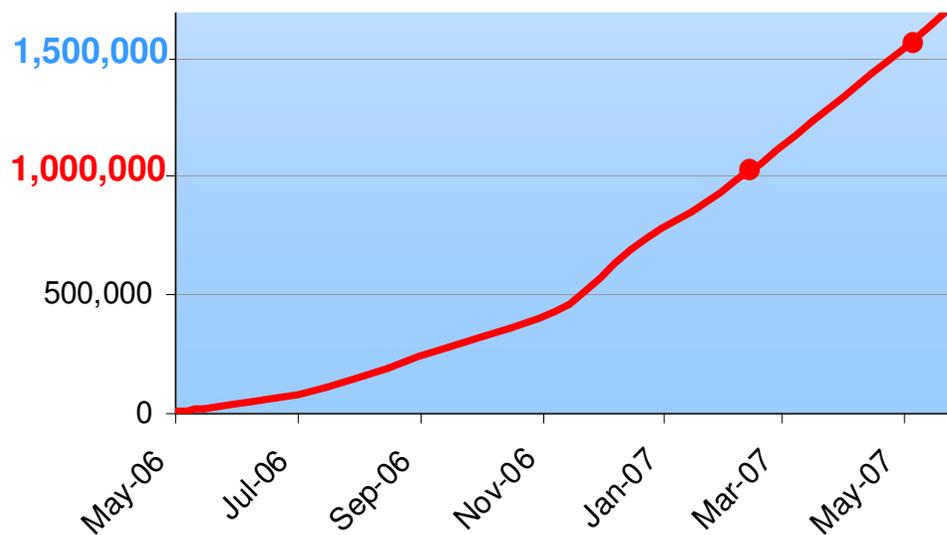
More

# 2.3



# HOME by the numbers

## How many users TomTom registered so far?



**+500,000**  
X-mas period

**+400,000**  
average / month

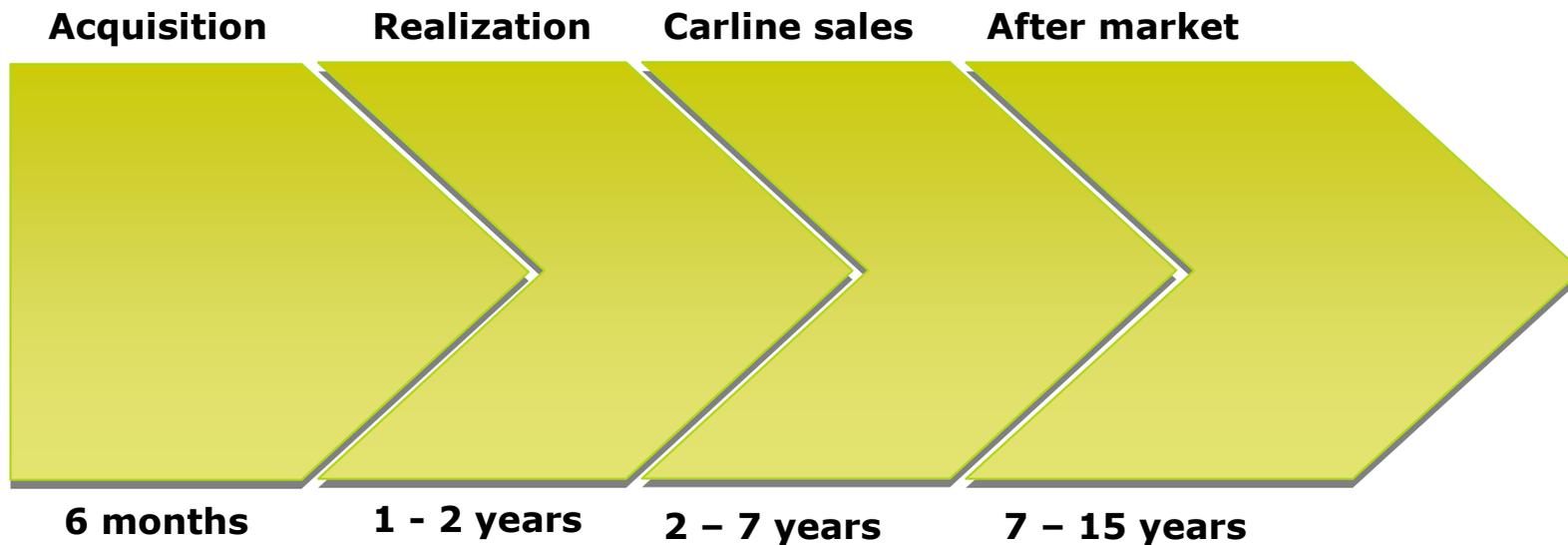
A registration  
every 6 seconds!

**March update:  
5.3 Million**



# OEM cycles vs. consumer demands

**Automotive requires long product life cycles**



Challenges:

- Applying retail roadmap in automotive
- Delivery of new software features during complete lifecycle

# TomTom Automotive portfolio

**Embedded Navigation**



**Embedded and Portable  
Navigation Module  
Example: Toyota Yaris**



**Connected PND**



TomTom: Best Maps, Best Routes, Best Traffic

TomTom Content & Services



TomTom HOME Internet portal

# Smart integration of TomTom CE devices: new Seat Ibiza





**Thank you for your attention!**