

A thick blue curve starts at the top left and arcs towards the right, ending near the top right.

NAVTEQ

Qualidade de Dados

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Two decorative curves are at the bottom. A blue curve starts from the left and goes down towards the bottom right. A green curve starts from the bottom left and goes up towards the right, crossing the blue curve.

NAVTEQ® Maps are Everywhere

NAVTEQ is the leading provider of the digital map, traffic and location data that powers many of the world's most innovative navigation applications

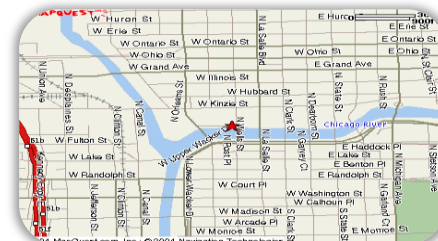
In-Dash



Telematics



Internet



Portable



Cell Phones



Trip Planning



Fleet



Enterprise



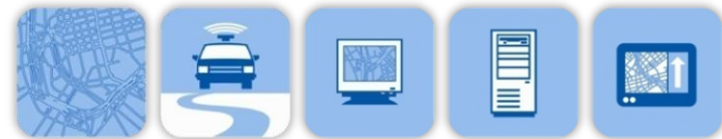
Government



A Comprehensive Quality Approach

At NAVTEQ, we build our map step by step. At every stage, we focus on creating accurate, precise data to be used in a wide range of applications

- ▶ NAVTEQ's global map build process includes:
 - ▶ Quality Testing over 80,000 Data Sources
 - ▶ Collection and Verification by Local Experts
 - ▶ Database Validation and Compilation
 - ▶ Publication of Data
 - ▶ Continuous Testing for Quality Improvement



NAVTEQ is not only focused on building an accurate database, but on keeping it fresh so that it reflects the real world

The NAVTEQ Difference: Its People and Technology

Leveraging the right balance of people and technology allows for NAVTEQ's competitive advantage in providing the highest quality map

▶ **NAVTEQ's ~ 1,100 Geographic Analysts:**

- ▶ Local knowledge: 204 offices in 46 countries
- ▶ Field teams “own” their piece of the map

▶ **NAVTEQ's Global Toolkit:**

- ▶ A single global specification— One World, One Database
- ▶ Tools and technology are mobile and scalable to adjust to unique scenarios

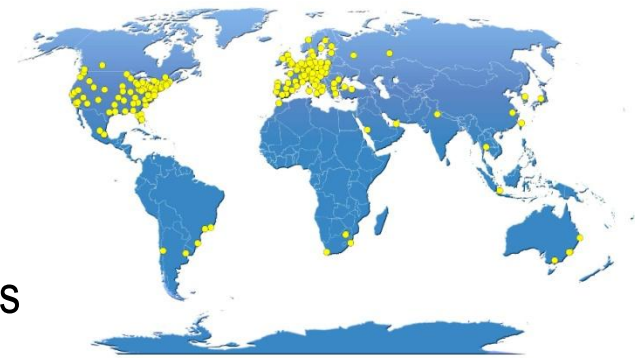
▶ **NAVTEQ's Continuous Innovation:**

- ▶ New ways to leverage existing tools
- ▶ Powerful tools open the door to new content and boost collection capabilities

Local Knowledge: A Key Value Add

This in-depth “human factor” delivers data consistent with real world conditions and results in a multi-faceted and comprehensive product

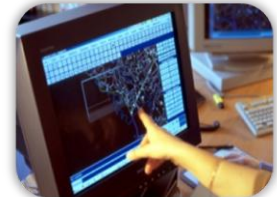
- ▶ Local field teams “own” their piece of the map
 - ▶ Collecting and verifying up to 260 attributes
 - ▶ Regular updating of changing/growing areas
 - ▶ Identifying new unique local sources
 - ▶ Adapting collection methods based on local constraints
 - ▶ Responding to customer update requests
 - ▶ Defining phonetic translation localization
 - ▶ Adding local content coding directly into the map
 - ▶ Monitoring quality at every step of collection and production



The Power of a Common Approach: Global Toolkit

Identical software, tools and processes used by our approximately 1,000 geographic analysts are the foundation of NAVTEQ's unique build process

- ▶ Examples of software, tools and processes include:
 - ▶ Multi-view cameras which enable a complete view of the road to optimize data quality and collection efficiency
 - ▶ Geo-referenced audio files allow for “virtual re-drives” and provide context for field coding during production
 - ▶ Inertial Measurement Units (IMU) aid in collection where GPS signals are unreliable and provide the precision needed for advanced data collection
 - ▶ Automated feature extraction and real-time validation tools help ensure equal emphasis on efficiency and quality



A photograph showing a dirt road curving through a dense, lush green forest. The road is muddy with some puddles. The view is from the driver's perspective, with the top of a green vehicle visible at the bottom. The text "Brazil Example" is overlaid in white.

Brazil Example

DRIVE to collect the ground truth.

and continue when the road ends.



Using right tools to fit the situation.





NAVTEQ keep “driving”



The Ground Truth



Value of Field Verification



After Field Verification



Value of Field Verification



After Field Verification



Testing is fundamental to Zero Degradation philosophy.

Final Product

In-Line Validation Testing

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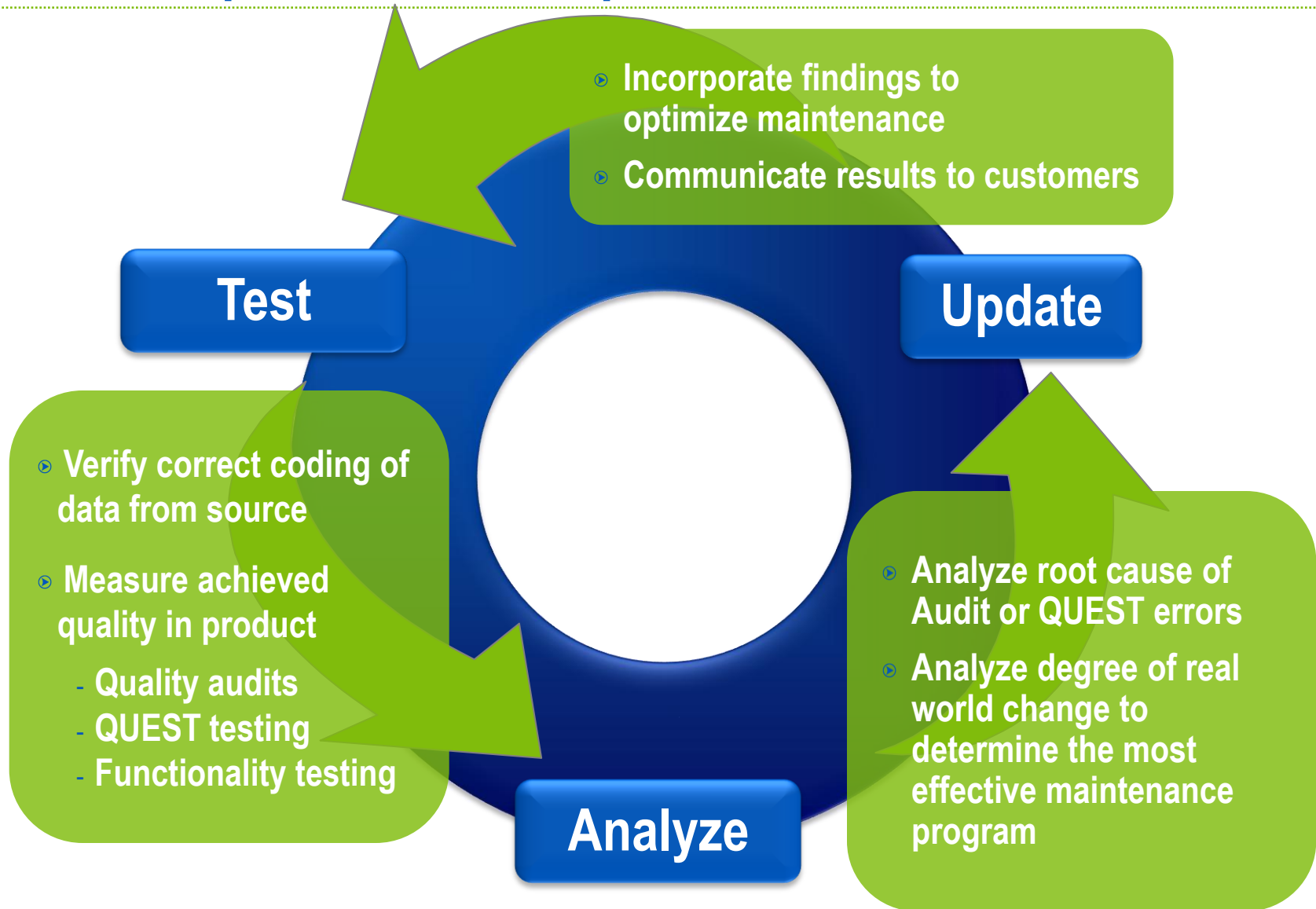
Real World QUEST Testing



Real-World Functionality Testing



Closed Loop Continuous Improvement Processes



Content that Meets Consumer Needs

Each year we expand our product offerings and drive market innovation with new ideas and to deliver customer requested functionality



NAVTEQ Voice



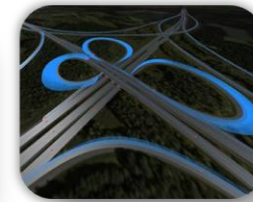
Junction View



Sign-As-Real



POIs



Curve and Slope



Speed Limits



Extended Lanes



Building Names



3D Landmarks



3D City Models



Driver Alert



NAVTEQ Traffic



Rich POI
Content



Extended
Navigation



Point
Addressing



NAVTEQ
Discover
Cities



NAVTEQ
Camera Alert



Brand Icons

Questions