



Geospatial Automation

Holland Glass Fiber Rollout



May 22, 2012

We deliver Global Engineering Solutions. **Efficiently.**

- Area:
 - Total: 41,526 km² (16,033 sq mi)
 - Land: 33,883 km² (13,082 sq mi)
 - Water: 7,643 km² (2,951 sq mi)
 - Coastline: 451 Km (280 mi)
 - Land boundary: 1,027 km (638 mi)

- Telcos
 - KPN
 - Versatel (Tele2)
 - Telfort (KPN)
 - UPC Netherlands
 - Ziggo



Source: Worldatlas & Wikipedia

Increasing demand for higher bandwidth and higher quality TV services

Bandwidth



Steady growth in demand for higher bandwidth

TV



Increasing demand for higher quality digital TV with interactive services

Triple-play



Demand for trip-play bundles increasing rapidly

Always Online



Trends of “always” online with both fixed & mobile

Access & Services



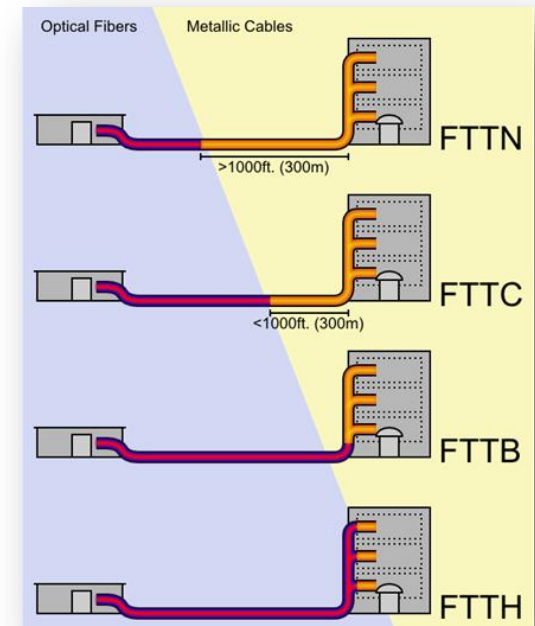
Operators focusing on access, quality & services

Mobility



Open access for any application / Mobile

- A delivery of a communications signal over optical fiber cable
- Reaches home / business from telecom operator exchange
- FttH is a new and fast growing method of providing vastly higher bandwidth to consumers and businesses
- Various FttH models:
 - FTTn – Node fiber (Copper)
 - FTTc – Curbside Cabinet (Copper/Ethernet)
 - FTTp – Business fiber (Ethernet/Fiber)
 - FTTh – Home fiber
- FttH infrastructure is almost underground



Source: FTTH Forum

Ftth enables high-speed digital applications for society



Telephony



Broadband



Digital TV



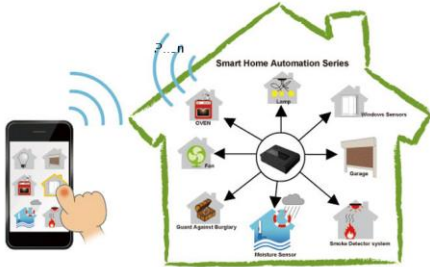
Gaming



Online Movies



Unlimited Mobility



Smart Homes

GIS Evolution for Telecom



Opportunities

Long term superior technology for Dutch market - Glass FttH

Pilots delivered promising commercial results so far

Connect all homes in the Netherlands - Ambition

Target to pass 80% of NL homes by 2015

Situation created a massive urgency

Challenges

Use of Spatial Software

Automation of Spatial

Registration of Data



- Limited Resources
- Technologies
- Budgets



Truly Spatial & Automated

Complete FttH Engineering Cycle

Analysis, Planning & Design

Registration & Construction Pack

30+ Spatial Productivity Tools

10+ Spatial Quality Tools

Various Products Support

User friendly Software

Eliminating Network Complexity while Achieving higher Productivity

Infi-Plan Lifecycle



- Landbase cleaning
- Geo coordinate mapping
- Properties verification
- Road / Water canal crossings

- Clusters formation
- Distribution Points location
- Duct / Trench / Fiber routes
- New areas

- Demand points
- Access / Distribution Fiber / Ducts
- Trench / Drilling Routes
- Road / Dams crossings

- Low level details
- Access / Distribution BoM / BoQ
- Splice Sheets
- Schematics
- Field Templates

- Database Fields
- Access / Distribution Splices
- Equipment and details
- Port Connectivity details

Geo Topology

Demand Points Placement

Cluster Placement

Center Line Placement

House Entry Placement

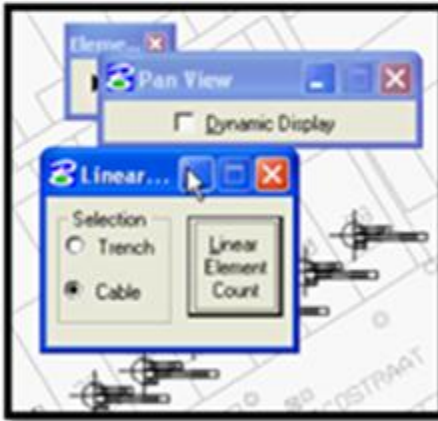
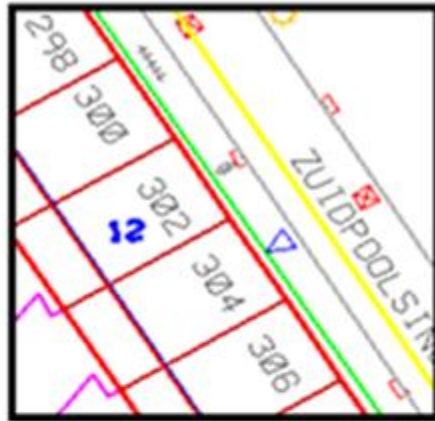
Fiber Routes Placement

Distribution Points Placemat

Access Trench / Drilling Routes



Automation Tools



- Large numbers of networks in a short time
- Consistent and faster FttH network products
- High quality products / Optimized
- Minimize / Elimination of re-works
- Time & Process optimization
- Leveraging of Spatial benefits
- Effective / Accurate registration
- Reduced Costs

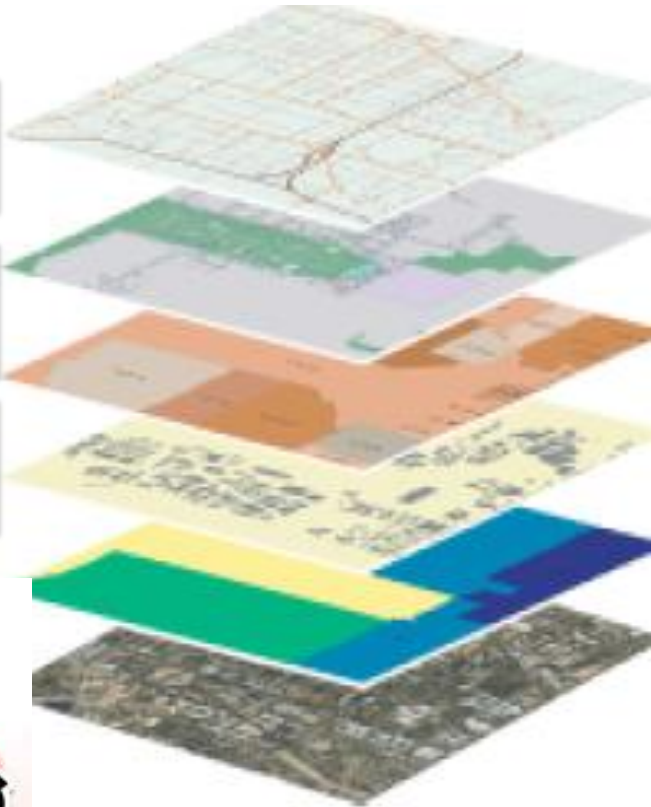




GIS is superior platform for telecom

Lot of automation required

Meet the massive demand on time





Thank You

Kiran Solipuram

Kiran.solipuram@infotech-enterprises.com

Kevin Challan

Kevin.challan@infotech-enterprises.com



www.infotech-enterprises.com

We deliver Global Engineering Solutions. Efficiently.