Digital Construction

Ewout Korpershoek
Executive vice president
WELCOME TO TOPCON

A Global Manufacturer of Positioning Solutions for the Geospatial, Construction and Agricultural Industries

27 COUNTRIES

86 COMPANIES

4459 EMPLOYEES

1.5 Billion GLOBAL REVENUE
Topcon Positioning Group operates in three business groups responsible for global development and sales of positioning solutions.
GeoPositioning

Optical Instruments
Total Stations
GPS Systems

Laser Scanning
Mobile Mapping
GPS Networks

Field Controllers
Software
Survey Solutions
Agriculture

Crop Analysis
Data Management

Guidance and Autosteering
Weighing and Measurement
Mapping

Implement Control
Feed Management
Presented by Chase Perryman

- Concept, Plan & Design
- Initial Site Conditions
- Land Survey
- Engineering & Planning
- Site Control Management
- Fine Grading
- Rough Earthwork
- Utility Excavation
- Enterprise Connectivity
- Topcon Solutions

Topcon

3D Printing
Road Resurfacing
Site Conditions As-Built

Topcon Solutions
Construction labor productivity has not kept pace with overall economic productivity.

Labor productivity, gross value added per hour worked, constant prices,\(^1\) index: 100 = 1995

\(^1\)Based on 2010 prices.

Source: Organisation for Economic Co-operation and Development
Different phases in construction process act as ‘silos’.

Traditional Construction Process
Point cloud based As Built-Model verification

Tolerance analysis

Clash detection

Collaboration & reporting

Construction Verification
Point cloud based FFL analysis in on site

Work while concrete still wet

Compliance checks in minutes instead of days
CONTINUOUS AS BUILT ANALYSIS

Easily link model elements to schedules & tasks

Track progress against plan

Quality assurance

Minimize rework

MAGNET enterprise

PLANNING  SURVEY  DESIGN  LAYOUT  EXECUTION  INSPECTION  MAINTENANCE
CONTINUOUS SITE MANAGEMENT

4D and 5D simulation

Clash avoidance

Manage temporary site elements

Optimize site traffic and safety
Constructioneering

PLANNING          SURVEY          DESIGN          LAYOUT          EXECUTION          INSPECTION          MAINTENANCE

Production
Data, Information, Knowledge

Constructioneering
Support the Construction Industry to optimize and understand Digital Construction

Practical, Hands on, Focus on Best practices

Deep product integration for optimized efficiency, less rework and significant productivity increase

Constructioneering Academy

MAGNET Enterprise

ProjectWise

Integrated web services platform for true seamless connectivity
Simplify your construction workflows
From planning to maintenance, it is not about optimizing one phase, it is the seamless integration of all phases to create seamless construction automation.