

Transforming Construction

Roz Buick

Senior Vice President
Trimble Buildings

Trimble Inc.



Position



Information



Communication

Transforming the Way the World Works

At Trimble, we have been in the business of crafting confidence for customers for over 40 years.

Founded on the core principles of triangulation, we stand for: Position, Information and Communication.

Where all points unite, you'll find Trimble with innovation and technology for the future.

Trimble Snapshot



Company



NASDAQ:
TRMB



\$3.13B
Revenue (2018 year end)



34%+
Buildings & Infrastructure



Innovation



1,200+
Unique Patents



360 Construction Workflow
& Technology Patents



14%
R&D re-invested



People



11,000+ Employees
in 35 Countries



800+ Construction
Professionals



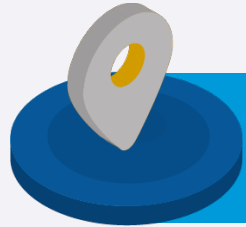
Global Customers
in **150** countries



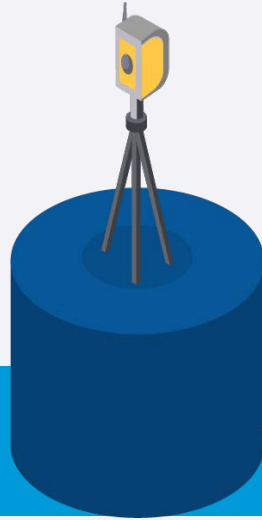
Trimble Is Pervasive

Trimble's Transformation

Innovation Frontiers



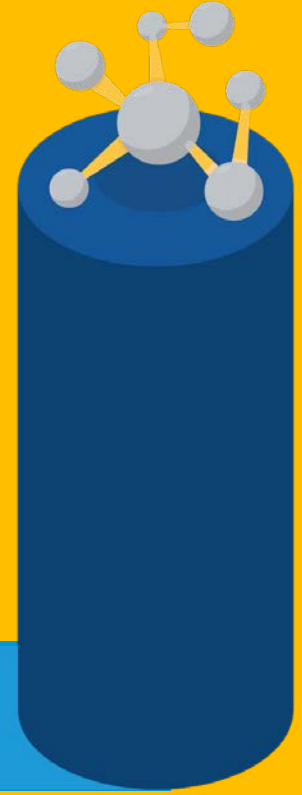
GPS



Positioning



Productivity



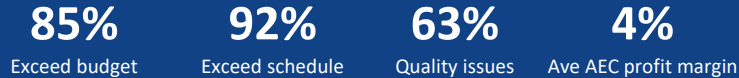
Integrated
Work Process

Transformation Happens As People, Process & Technology Come Together

Construction constitutes 13% of global GDP, but construction is hard & productivity is low

Process

Complex bespoke projects with fragmented workflows & supply chain



People

Skilled labor is a top priority to find, attract, train, retain



Technology

Low investment, disparate point solutions & many startups



Trimble Construction

The essential integrated and open-
data

design-build-operate

digital platform

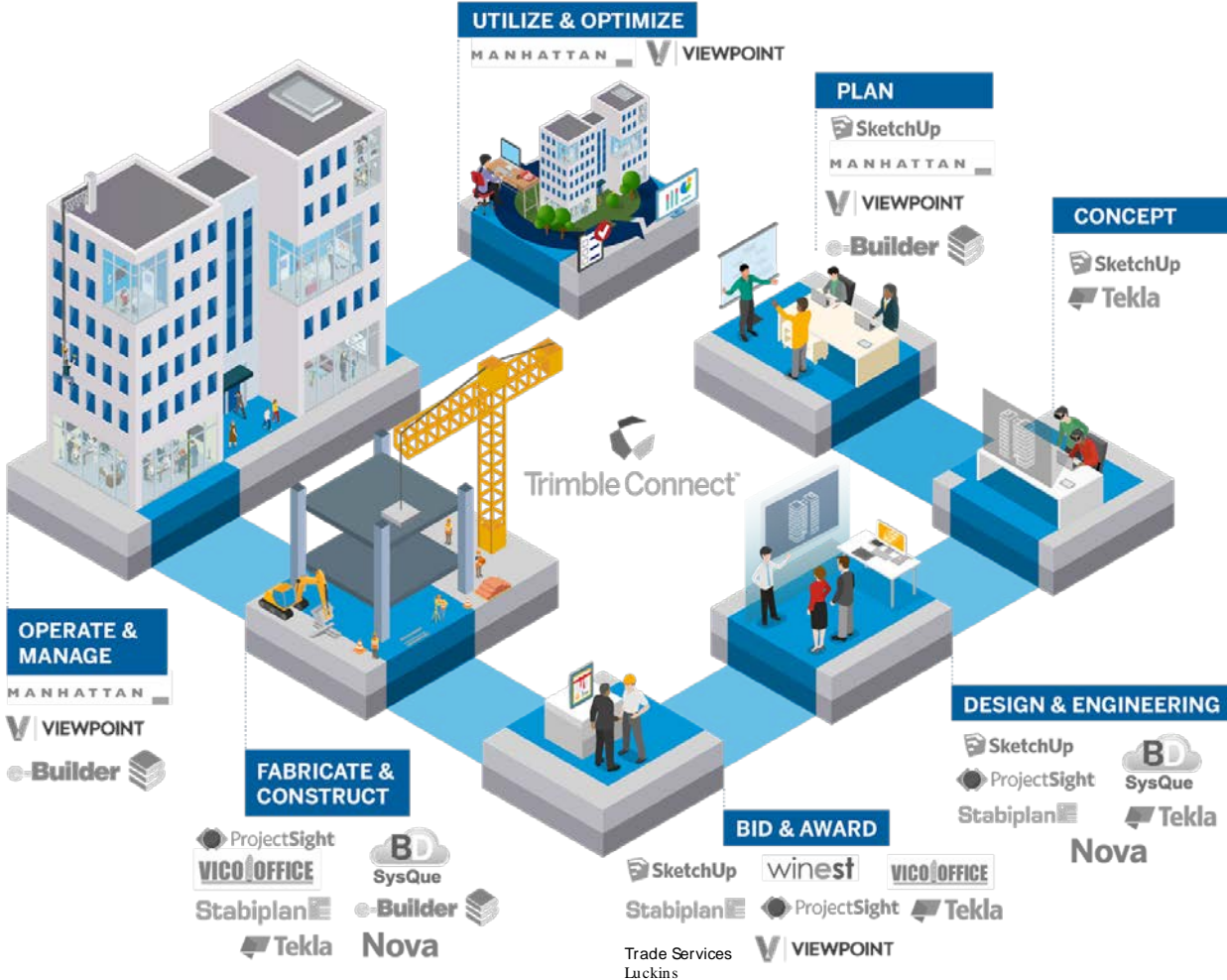
transforming workflows, business

and project delivery outcomes

for all stakeholders

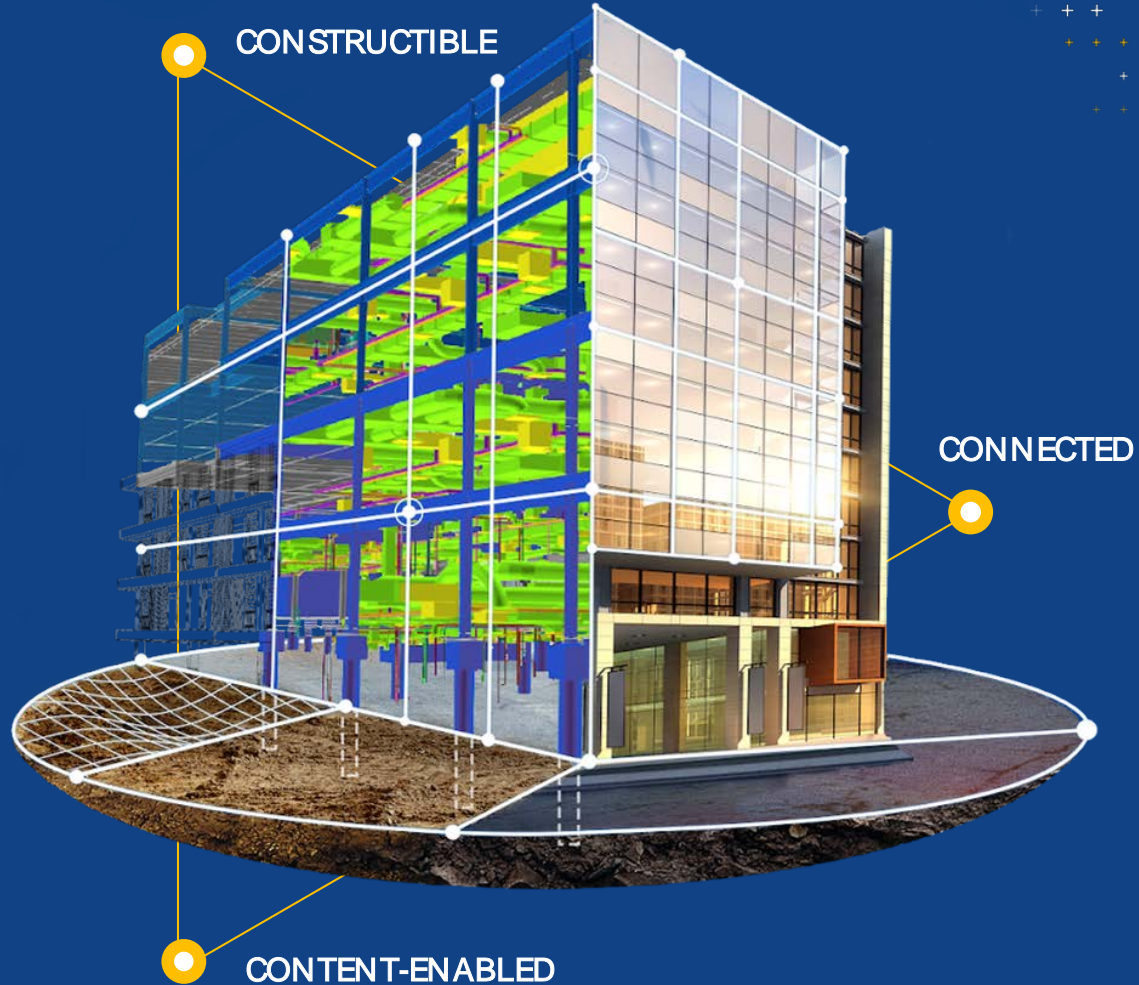


Trimble Buildings Ecosystem



The Constructible Process

*The Industry's
Digital
Transformation*



The Trimble Construction Digital Platform

**Professional
Services**

Implementation
& Training

Virtual Design &
Construction
(VDC), & Project
Services

Business
Consulting &
System
Integration

Advisory
Services &
Best
Practices

Capital
Planning



Conceptual
Design



Design &
Engineer



Takeoff &
Estimating



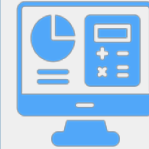
Scheduling



Portfolio &
Project
Mgmt



Enterprise
Resource
Planning,
HR &
Payroll



Fabricate /
Manufacture



Field
Solutions



Real Estate
& Work
Space Mgmt



**Constructible
Process
Transformation**

Content-
Enabled

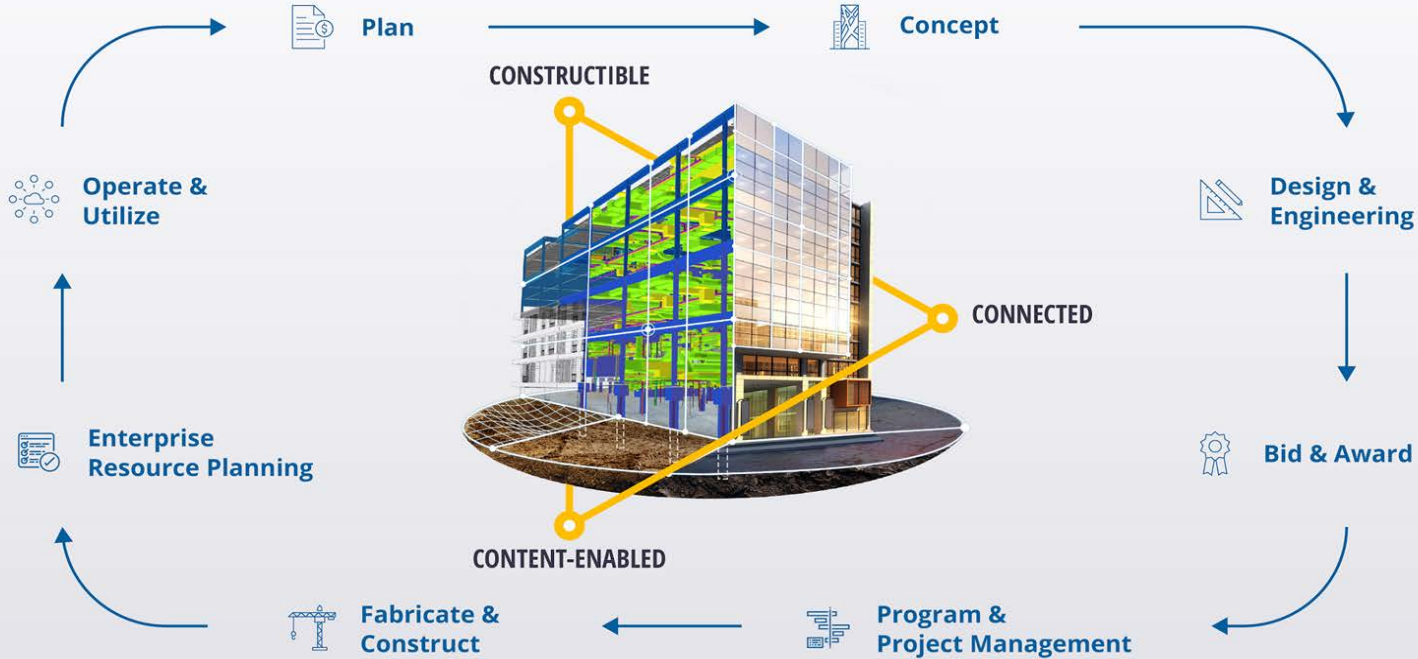
Connected

Constructible

Position-Centric

As We Transform The Lifecycle With The 3C's

3 Core Tenets Underpin Our Approach



1. 3D for ALL
2. Critical Path
3. Open data

Connected



Connected Construction

The Right Data to the Right Person at the Right Time

Between Stakeholders

- Owner
Capital Program
Management
- General Contractor
Project Management
And Controls
- Self Perform Contractor
Production Schedule,
Work Order Management
and As-build QA

In the Office



REPORTING



PROCUREMENT



JOB COST



SCHEDULING



LABOR

In the Field

TABLET



INSTRUMENT



EQUIPMENT



MATERIAL

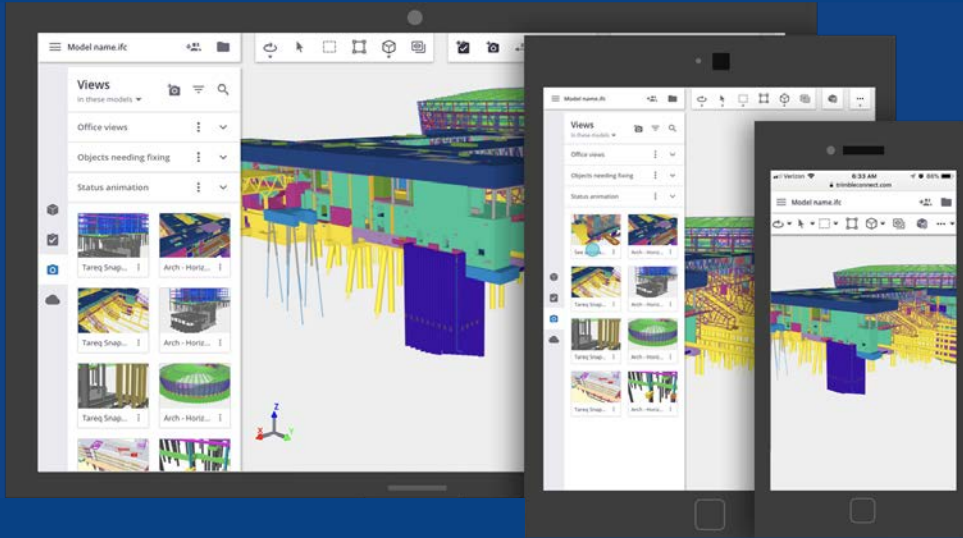


Trimble Connect Transforms Decision Making

Share & Collaborate Around Project Data through the Trimble Cloud and view it anywhere. On your desktop, laptop, smartphone, Hololens or VR set. Data management “backbone”

Data in Design Context creates **Information** that enables better decision making

Open & Extensible Suite with CDM

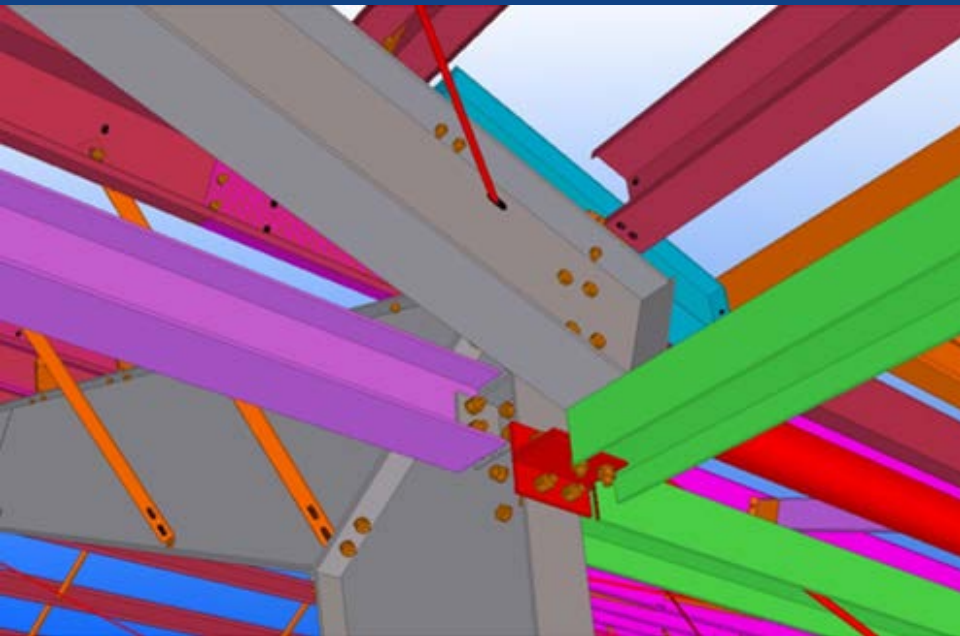


Constructible



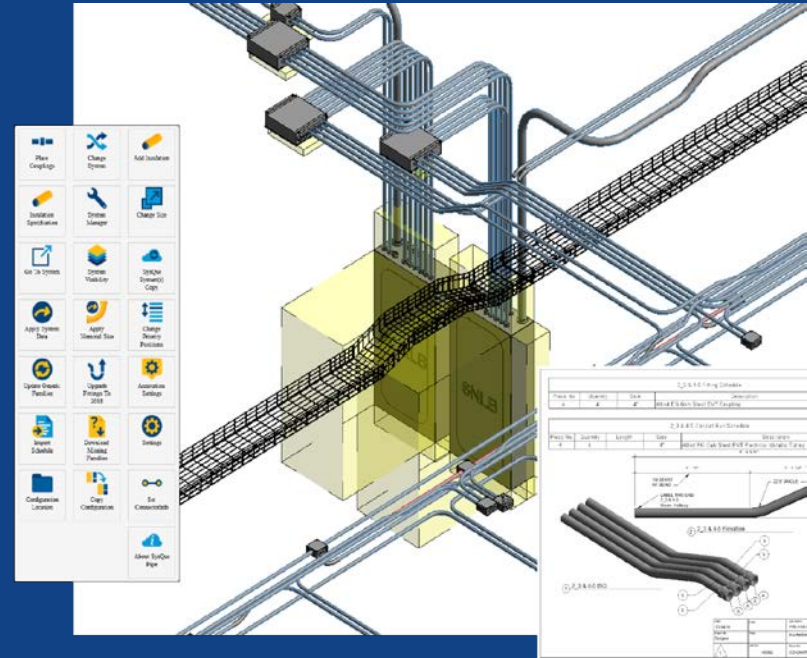
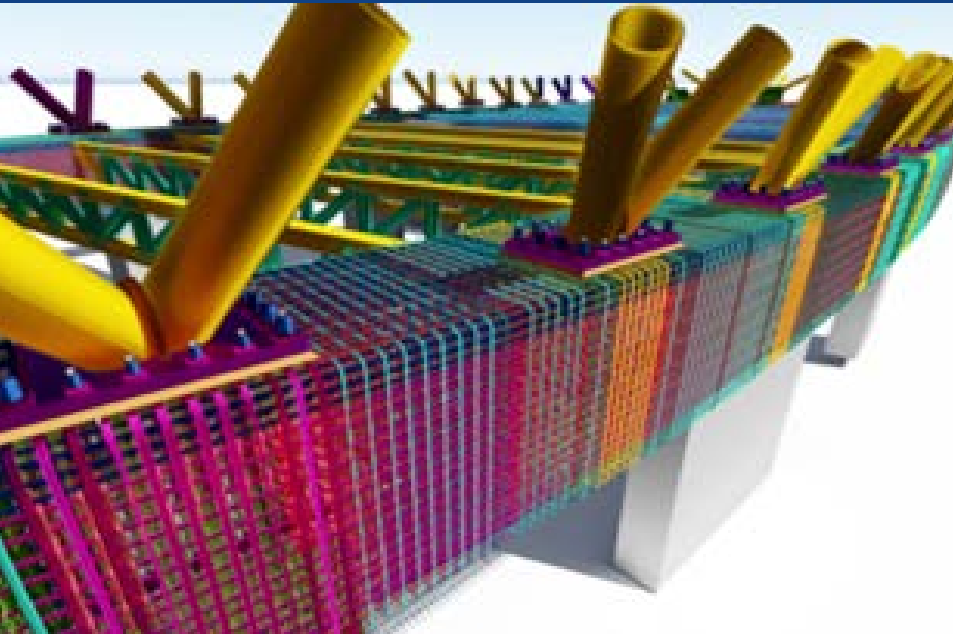
Constructible

So Accurate You Can Build From It



Constructible

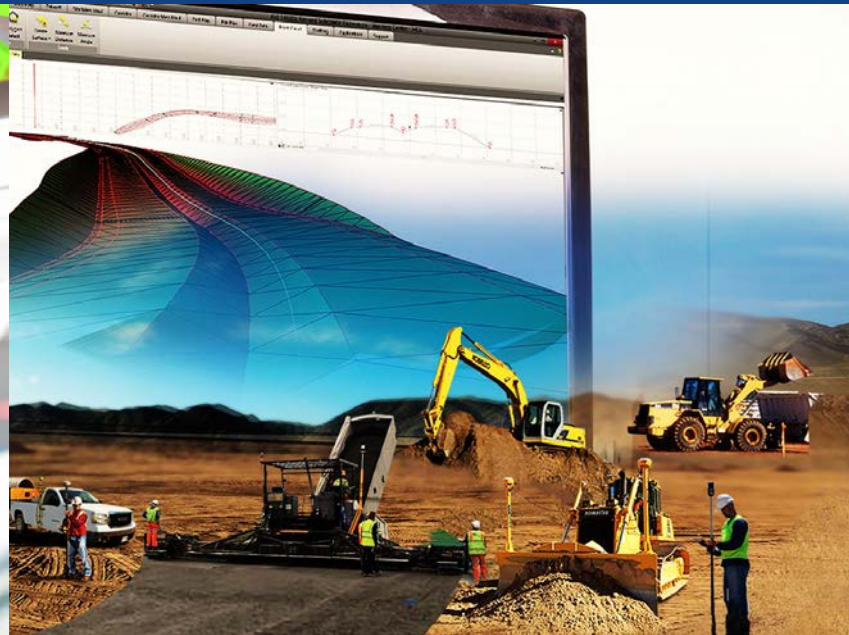
So Accurate You Can Build From It





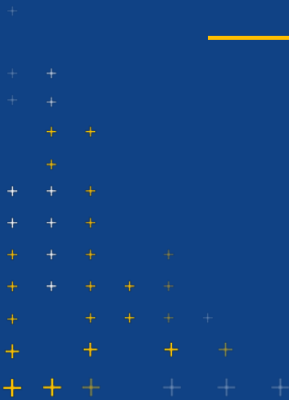
Constructible

So Accurate You Can Build From It





Content-Enabled



Content-enabled

3D Warehouse All search for Models or Collections

Living Room Nur F.
INTERIOR 1 (Livingroom) collection 1 joo8C
Closet Wall Vign RL

PORTINARI opendesk BELWITH KEELER BRIZO Schneider electric MODLOFT

Devissons Sweet 27 ornaromans
LEMA BAILU Lem
Attract Outdoor Patio Choice VayloKageelTook

Render Plus Soft... Learn To Use 3sk... Profile Builder 3... ConDoc 4... Rockit3D... Podium Browser...

SketchUp
Explore the new SketchUp! The world's most popular 3D modeling and design application just got a remodel! For 2019, we've got a whole new way to SketchUp. Check out SketchUp subscriptions.

Extension Warehouse
Did you know in addition to our amazing 3D modeling content, we have extensions to customize your SketchUp experience? Check out our library of third-party extensions, created to optimize your workflow.

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Remora Haterway POLY-EGGON Drain-Off POLY-EGGON Sintered POLY-EGGON Long POLY-EGGON Short POLY-EGGON ONITE POLY-EGGON Sintered

Voluta Fire Protection Voluta Strength Thin Voluta Voluta Strength Environment Durotop TAMREX

Fastening plate embeds

0 likes **Trimble Solutions Corporation**

Generic Fastening Plate embeds for precast concrete structures

Detailing Fabrication Precast concrete Environment files

Custom components

Embed Profiles - NLD

0 likes **Construsoft**

Embed profiles from Dutch environment, including HTA anchor rails, positive volume, clamp and powerbox profiles.

Steel structures Profiles Environment files

Preparing For A Constructible Digital Transformation

Define Success

- Clear goals for the team, department, business or company
- Measurable outcomes & by when
- Define your DATA goals & strategy
- Focus !
- Hire / empower capable “champions”

Ensure Process, People & Organizational Readiness

- Capable “champions” are empowered
- Communicate strategic importance
- Financially supported
- Organizationally supported
- Adoptable, links to streamlined process
- Monitor & communicate progress to goals



Our Value Is Transformative To The Client's Business

Volker Wessels Is Implementing Trimble's Digital Open Data Platform & Constructible Process

"Stop data sprawl, move to be data centric, integrate data to create efficiencies and new services."

Currently have 900+ Projects on
Trimble Connect with 6,000+ users and
1,000 GB of data



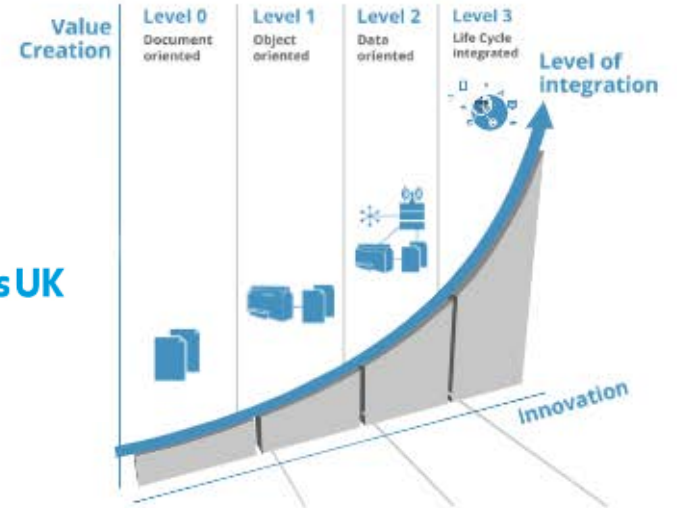
The Integration of BIM + GIS + IoT



VolkerWesselsUK
























Management gets the importance of a data strategy

Levels of Information Management...



...“On our way to become a data-driven construction company” ...

Transformation Demands Industry Partners & Relationships To Enhance Our Customer Value

Direct Sales & e-commerce	~500 Direct Sales Personnel		~50% Revenues by e-commerce
Strategic Partnerships Dealer Partnerships	  	 	~150+ Dealer Partnerships
OEM Relationships for Mixed Fleets	             		
Interoperability for Software	          		

Data Is The New Currency

From Conceptual To Constructible To Facility Models



**Conceptual
Model**



Detailed engineering
Cost estimate
Schedule
Budget
Subcontracts
Submittals
Change orders
Actual cost



**Constructible
Model**

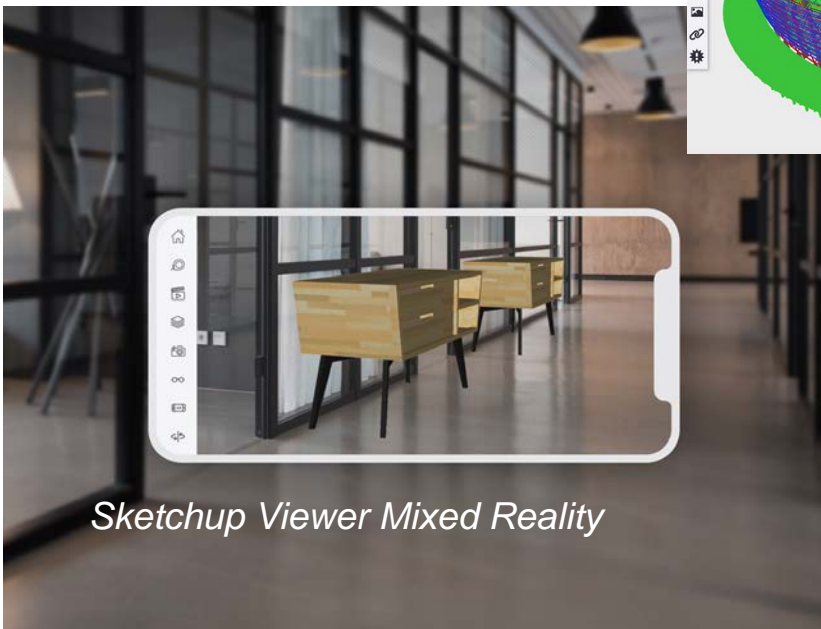
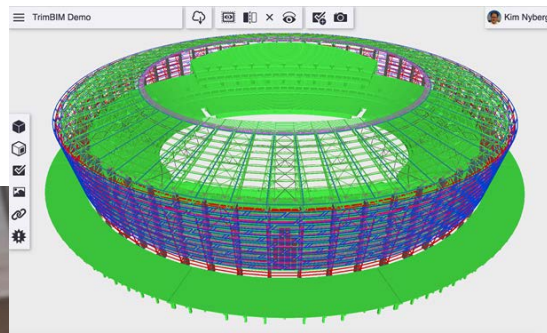


As-built condition
Commissioning
O&M manuals
Tenant improvements
Post-occupancy changes
Work orders
Leases
Capital improvements
Space planning
Moves / Adds / Changes
Space scheduling
Analytics



**Facility
Model**

Continual Innovation For Market Leadership



Sketchup Viewer Mixed Reality



Trimble XR10 Hardhat with Microsoft HoloLens2

The Integrated And Open Digital Platform

Professional Services

Implementation & Training

Virtual Design & Construction (VDC), & Project Services

Business Consulting & System Integration

Advisory Services & Best Practices

Capital Planning



Conceptual Design



Design & Engineer



Takeoff & Estimating



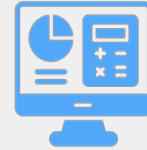
Scheduling



Portfolio & Project Mgmt



Enterprise Resource Planning, HR & Payroll



Fabricate / Manufacture



Field Solutions



Real Estate & Work Space Mgmt



Constructible Process Transformation

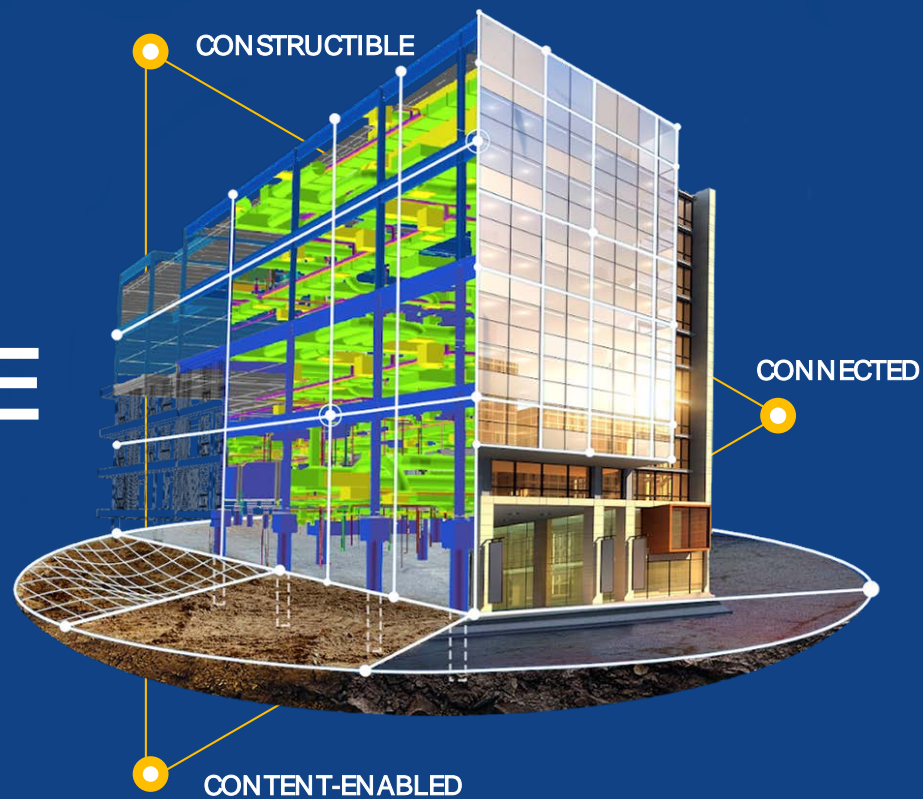
Connected

Constructible

Content-enabled

Position-Centric

CONFIDENCE



THANK YOU