Kvaliteetsete andmetega paremate tulemusteni

Ekke Piirisild

Construction Industry Readiness Specialist

Autodesk Ltd (UK)

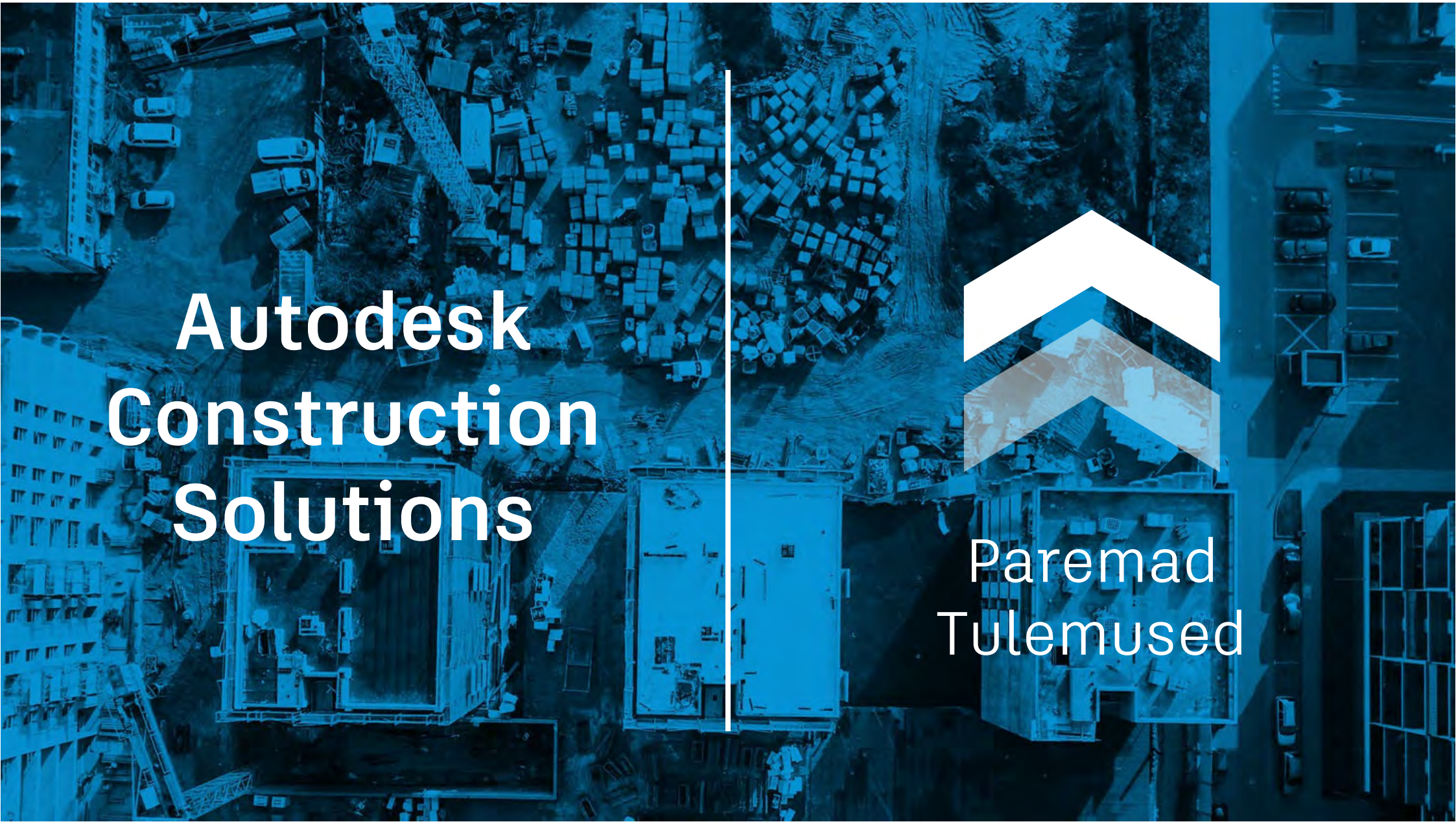
Safe Harbor Statement

Each of the presentations today will contain forward-looking statements about our strategies, products, future results, performance or achievements, financial, operational and otherwise, including statements about our strategic priorities, business model transition, and guidance for the first fiscal quarter and fiscal year 2020; our long term financial and operational goals; our M&A strategy; our capital allocation initiatives; and our stock repurchase program. These statements reflect management's current expectations, estimates and assumptions based on the information currently available to us. These forward-looking statements are not guarantees of future performance and involve significant risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from results, performance or achievements expressed or implied by the forward-looking statements contained in these presentations, such as a failure to maintain ARR, ARPS, subscriptions, billings, revenue, deferred revenue, margins and cash flow growth; difficulty in predicting those financial and performance metrics; failure to maintain spend management; failure to successfully integrate acquisitions and manage transitions to new business models and markets, including our efforts to expand in construction and manufacturing, and attract customers to our cloud-based offerings; failure to successfully expand adoption of our products; and negative developments in worldwide economic or political conditions.

A discussion of factors that may affect future results is contained in our most recent Form 10-K and Form 10-Q filings available at www.sec.gov, including descriptions of the risk factors that may impact us and the forward-looking statements made in these presentations. The forward-looking statements made in these presentations are being made as of the time and date of their live presentation. If these presentations are reviewed after the time and date of their live presentation, even if subsequently made available by us, on our website or otherwise, these presentations may not contain current or accurate information. We disclaim any obligation to update or revise any forward-looking statement based on new information, future events or otherwise.

Non-GAAP Financial Measures

These presentations include certain non-GAAP financial measures. Please see the section entitled "Reconciliation of GAAP Financial Measures to non-GAAP Financial Measures" in the Appendices attached to the presentations for an explanation of management's use of these measures and a reconciliation of the most directly comparable GAAP financial measures.


Autodesk
Construction
Solutions
Paremad
Tulemused

Autodeski Strateegia Ehituses

https://bim360resources.autodesk.com/videos/construction-management-autodesk-construction-solutions

“ It is not the strongest of species that survives, nor the most intelligent that survives.
It is the one that is most adaptable to change
- Charles Darwin

9,800,000,000

200,000
GHIRARDELLI
TOPSHOP
TOPMAN
sale

13,000

1%
Global Construction
3.6%
Manufacturing

464%

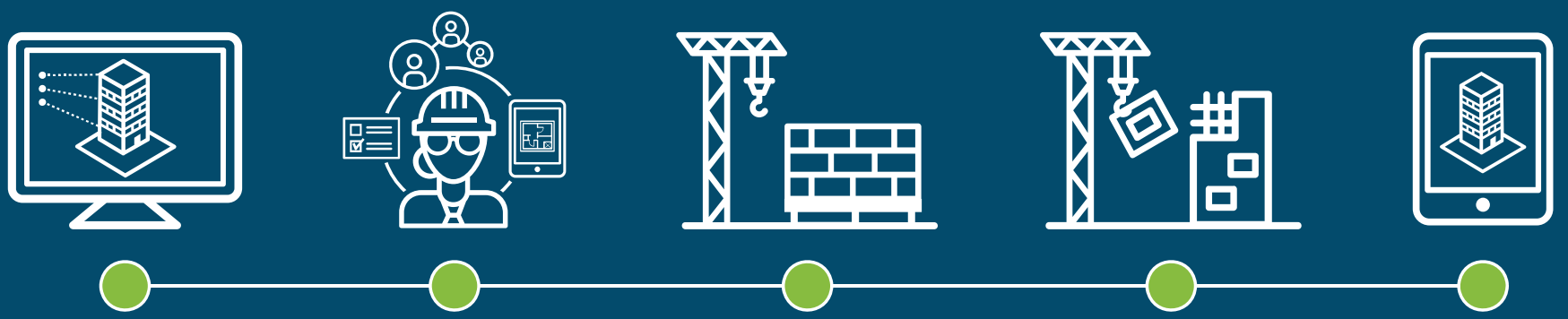
AUTODESK

More
Better
Less

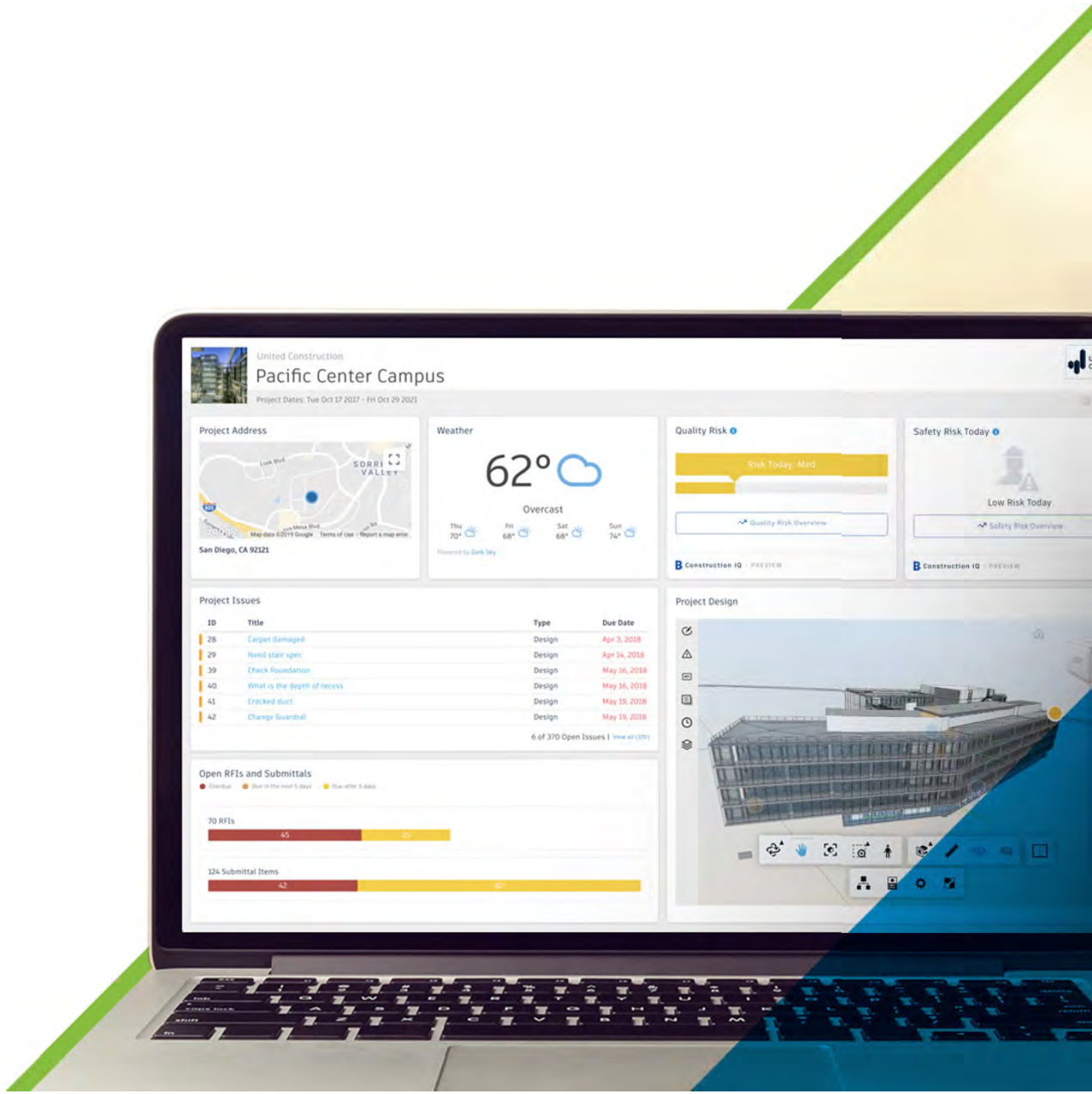
assemble
PlanGrid
BUILDINGCONNECTED

Autodesk Construction Solutions

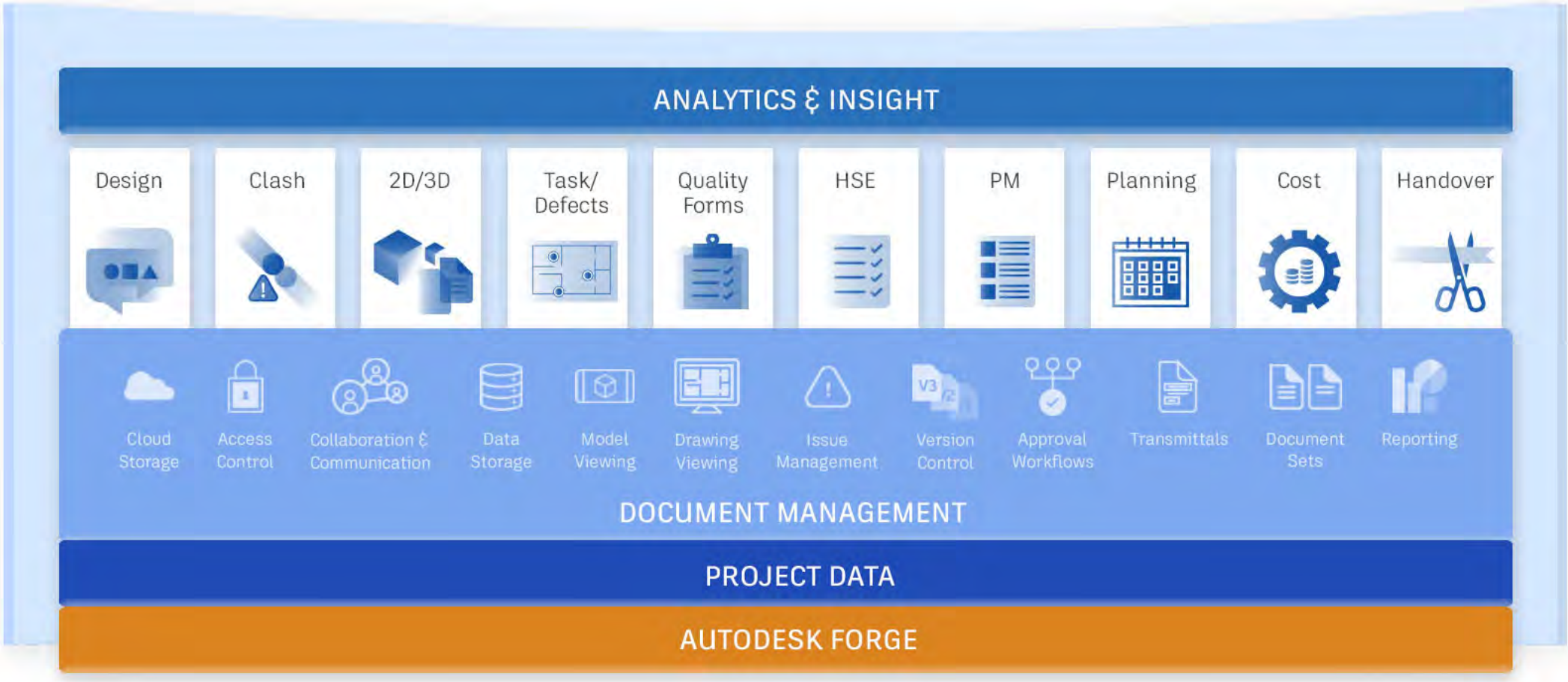
Deliver a comprehensive, integrated platform that seamlessly connects the office, the trailer, and the field.



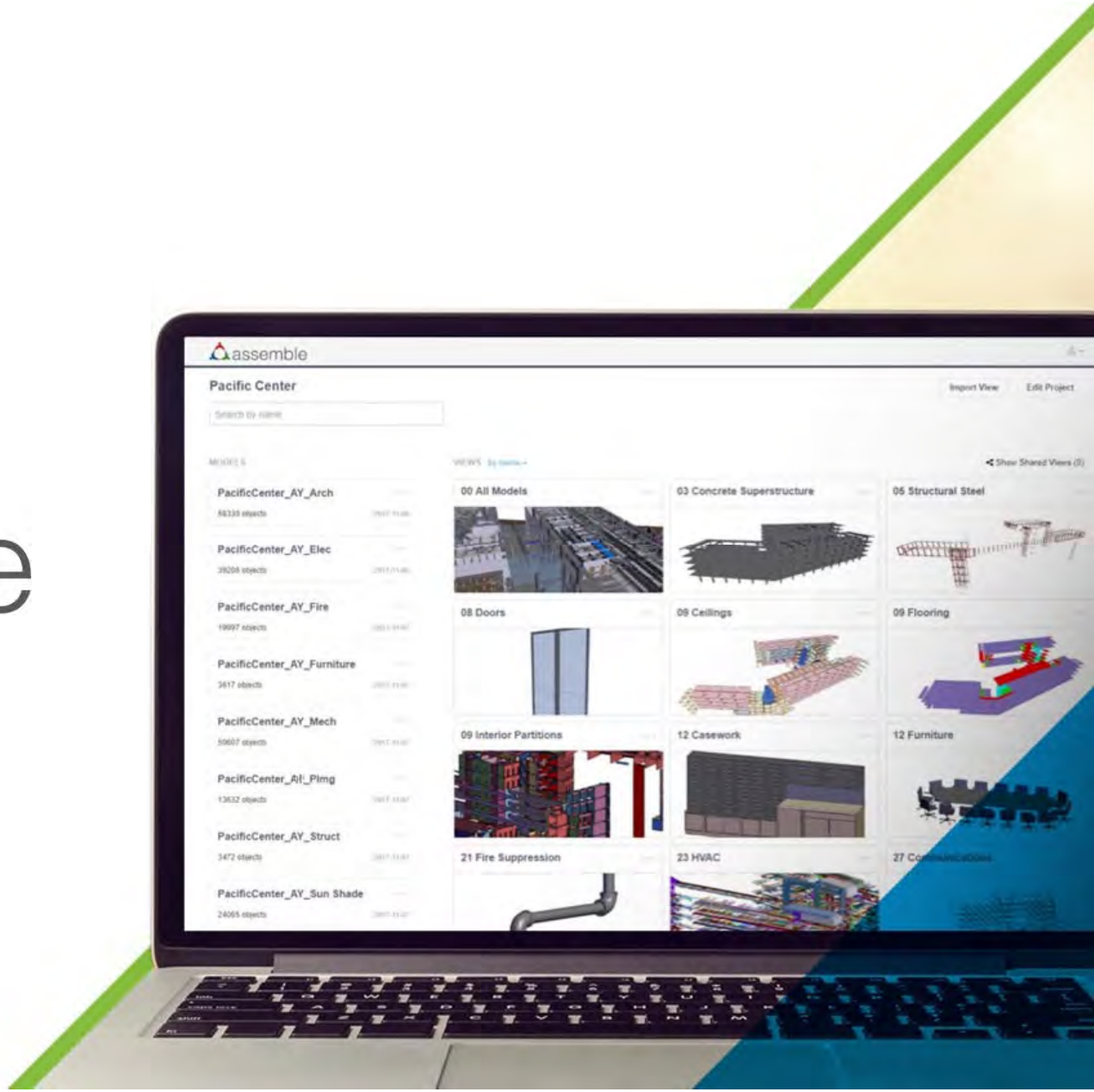
AUTODESK® **BIM 360**™



BIM 360 PLATFORM



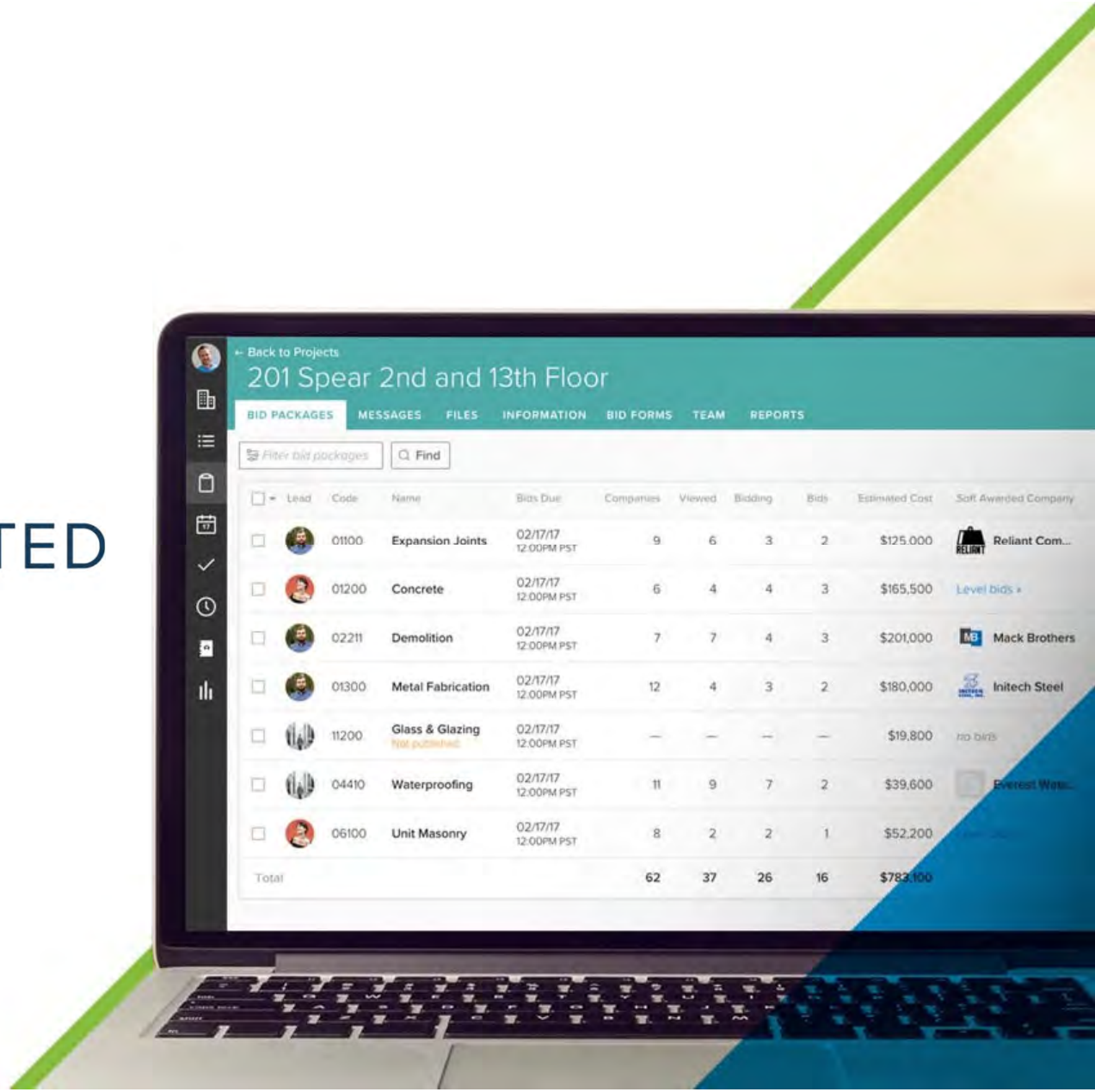
assemble


assemble
Pacific Center
Import View
Edit Project
PacificCenter_AY_Arch
PacificCenter_AY_Elec
PacificCenter_AY_Fire
PacificCenter_AY_Furniture
PacificCenter_AY_Mech
PacificCenter_AY_Plmg
PacificCenter_AY_Struct
PacificCenter_AY_Sun Shade
00 All Models
03 Concrete Superstructure
05 Structural Steel
08 Doors
09 Ceilings
09 Flooring
09 Interior Partitions
12 Casework
12 Furniture
21 Fire Suppression
23 HVAC

PlanGrid

BIM mode on
Clear
Basic Wall 428588
View in 3D
Constraints
Structural
Dimensions
Sheets

BUILDINGCONNECTED



AUTODESK.

AUTODESK® BIM 360™

BUILDINGCONNECTED

assemble

PlanGrid

Autodesk Portfolio in Action

"As users of BIM 360, Assemble, PlanGrid, and BuildingConnected, we have fully embraced the digitisation of construction. Using the complete portfolio, Clayco has seen a **60-70% reduction in the time it takes to access the most up to date project information,** and the time that it takes to make critical project decisions."

Tomislav Zigo
Vice President, Clayco Inc.

CLAYCO
THE ART & SCIENCE OF BUILDING

mace
Home Safe

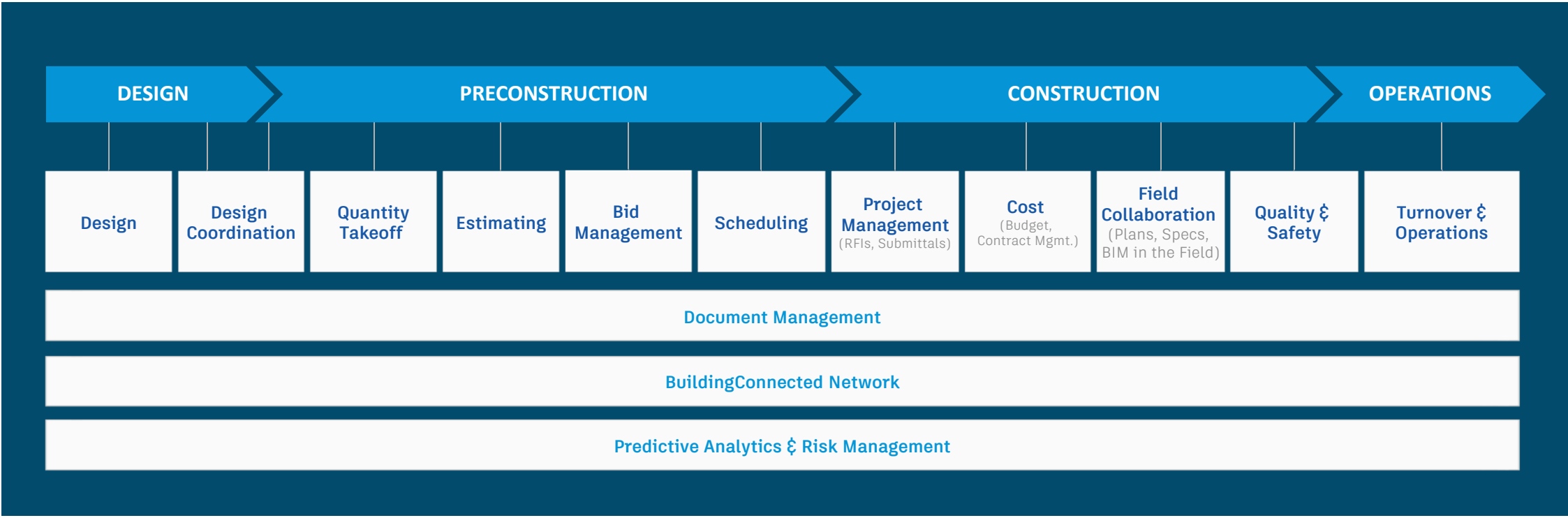
DIGITISE

DIGITISE
INTEGRATE

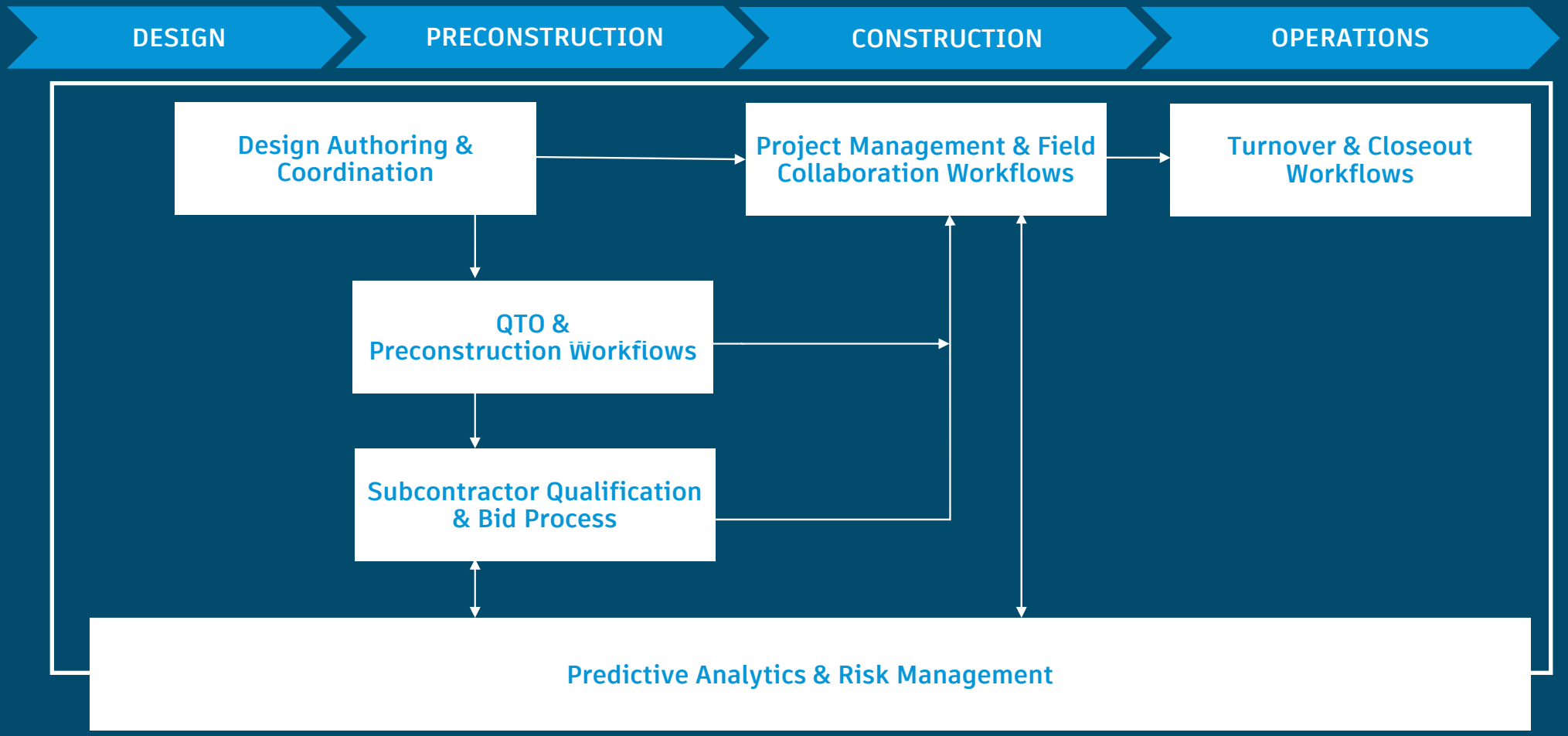
DIGITISE
INTEGRATE
PREDICT

Autodesk Construction Portfolio

assemble BUILDINGCONNECTED BIM 360 PlanGrid



Connected Construction Workflows



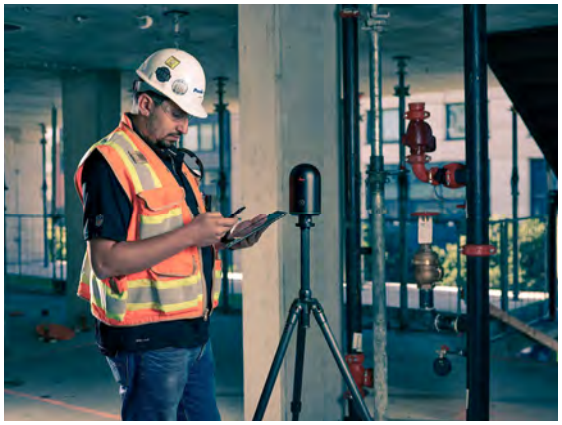
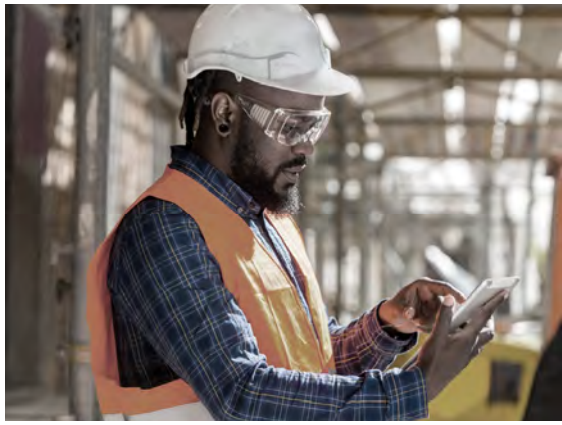
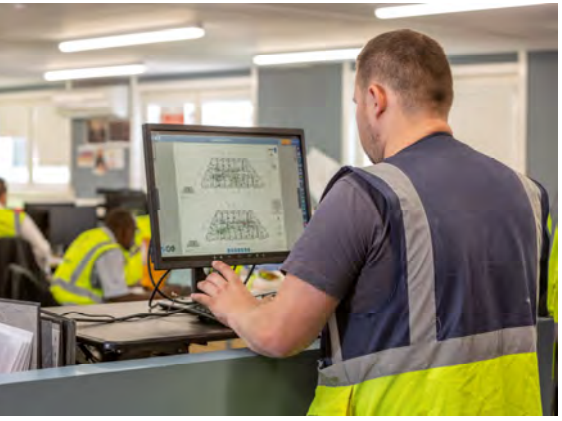
Construction Management
Scheduling
Bid Management
Design Checking
Layout
Document Management
Mixed Reality
IoT
Cost Management
Estimating/QTO
Reality Capture
PlanGrid Connect
builderbox
climacell
PPype
STRATUS
Assignar
NOTE VAULT
DOCUMENT EVERYTHING
ManufactOn
eSUB construction software
IDAT
SMARTVID.IO
RHUMBIX
REDTEAM
triax
Versatile Natures
IVIVA
PEERASSIST
BLUEBEAM
PREMIER CONSTRUCTION SOFTWARE
RAKEN
amazon REDSHIFT
amazon S3
asana
Airtable
EGNYTE
MySQL
Gmail
Excel
Office 365
OneDrive
SQL Server
Basecamp
SharePoint
Google Sheets
Jira Software
salesforce
Google Drive
slack
smartsheet
ORACLE
Microsoft Dynamics CRM
Trello
tableau
Wrike
ZOHO CRM
box
DocuSign
Dropbox
DroneDeploy
DAQRI
VISUALIVE3D
InsiteVR
goformz
Cloudsfer
ProjectReady
OneDrive
Google Drive
EGNYTE
Excel
Dropbox
Applied Software
Leica Geosystems
pim360
IMAGINiT
hsbcad
TOPCON
onTarget
GRIT
TIMING IS EVERYTHING.
STACK
assemble
SMARTBID
AUTODESK BIM 360
PlanGrid
AN AUTODESK COMPANY
CMiC
CONSTRUCTION SOFTWARE. EVOLVED
INTELSYS BUILD
RHUMBIX
BECKTECH
INNOVATION IN ALL DIMENSIONS
SIGMA ESTIMATES
3DR
POINTFUSE
HOLO BUILDER
PRECISIONHAWK
EarthCam
TrueLook
FotoIN
OPENSPACE
StructionSite
Ox Blue
SITEAWARE
SENSERA SYSTEMS

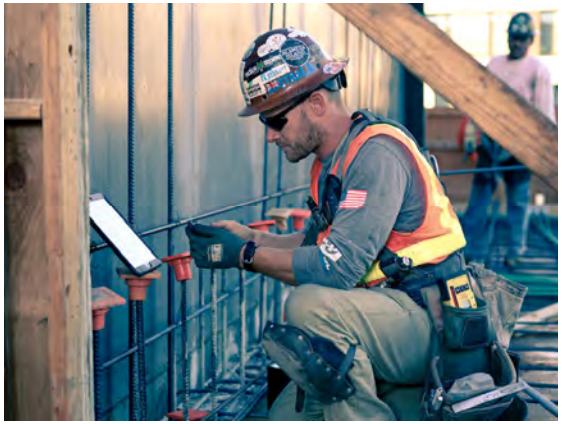
Tee paremate tulemusteni

Suurendata Tulusid
Vähendada Kulusid
Vähendada Riske

Ehituse Mõjutegurid
Mis valdkonnad mõjutavad äritulemusi?
Kvaliteet
Aeg
Eelarve
Ohutus
Projektide
Võitmine

Kvaliteet
Aeg
Eelarve
Ohutus
Projektide võitmine
• Vähendada ehitusvigasid projekti üleandmisel.
• Vähendada tööde ümbertegemise vajadust.
• Lahendada ehitatavuse probleemid enne platsile jõudmist.
• Parandada kliendikogemust.
• Laieneda uutele turgudele
• Parandada hangetel osalemise efektiivsust
• Võita rohkem hankeid
• Lõpetada rohkem projekte edukalt ja riskivabalt
• Vähendada kindlustusmakseid
• Vähendada ehitusõnnetusi
• Luua optimaalseid ehitusgraafikuid
• Parandada eelarvestuse täpsust
+ + +



CONSTRUCTION TECH MARKET MAP

COLLABORATION SOFTWARE

PROJECT & TASK MANAGEMENT

PROCORE, IPSUM, buildertrend, buildup, thinkproject!, FalconBrick, NOTE VAULT, CONSTRUCT, BulldozAIR, NEWFORMA, FIELDLY, Leansite, SUB, bridgit, FIELDWIRE, HONEST BUILDINGS, eida, GenieBelt, bouw7, PlanGrid, APROPLAN, ASSIGNAR

OTHER COLLABORATION TOOLS

Buildcon, ALICE, BUILDINGCONNECTED, STACK, busybusy, DRAWBOARD, Pantera Global Technology, FIBO, CINX

MARKETPLACES

EQUIPMENT SHARE

equippo.com, machinio, getable, ZOZR, KWIPPED, EquipmentShare.com, VERITREAD

OTHER MARKETPLACES

Buildkar.com, BUILK, ofBusiness, Viirt, ConCitest, buildzoom, Rootefy, Architizer, SWEETEN, Brick2Wall.com, WORK TODAY

FINANCIAL MANAGEMENT

JOIST, BuildPay, Contract Simply, CreditSuppliers

FRONTIER TECH & ROBOTICS

DRONES

3DR, SKYCATCH, dronomy, AirZaar, BetterView, TRACEAIR, propeller, Unearth, DroneDeploy, Airware

AR / VR

PANDORA, InsiteVR, SMIS, HOLOBUILDER, magicplan, SCOPE AR, serious:labs, iris

CONSTRUCTION ROBOTS

COOPER-GRAY ROBOTICS LLC, CBOT, ENDLESS ROBOTICS, Construction Robotics, BUILT ROBOTICS

3D PRINTING

cazza, INOVAhouse 3D, apis cor

INVENTORY & SUPPLY CHAIN MANAGEMENT

KATERRA, HYPHEN SOLUTIONS, SmartEquip, ManufactOn, VILOC

DESIGN TECHNOLOGIES

onTarget, GRAITEC, Onshape, DOT PRODUCT, FINALCAD, SMARTBIM TECHNOLOGIES, revizto, FLUX.IO, Abvent, imerso

DATA & ANALYTICS

UPTAKE, basestone, RHUMBIX, VERNOX LABS

RISK MANAGEMENT

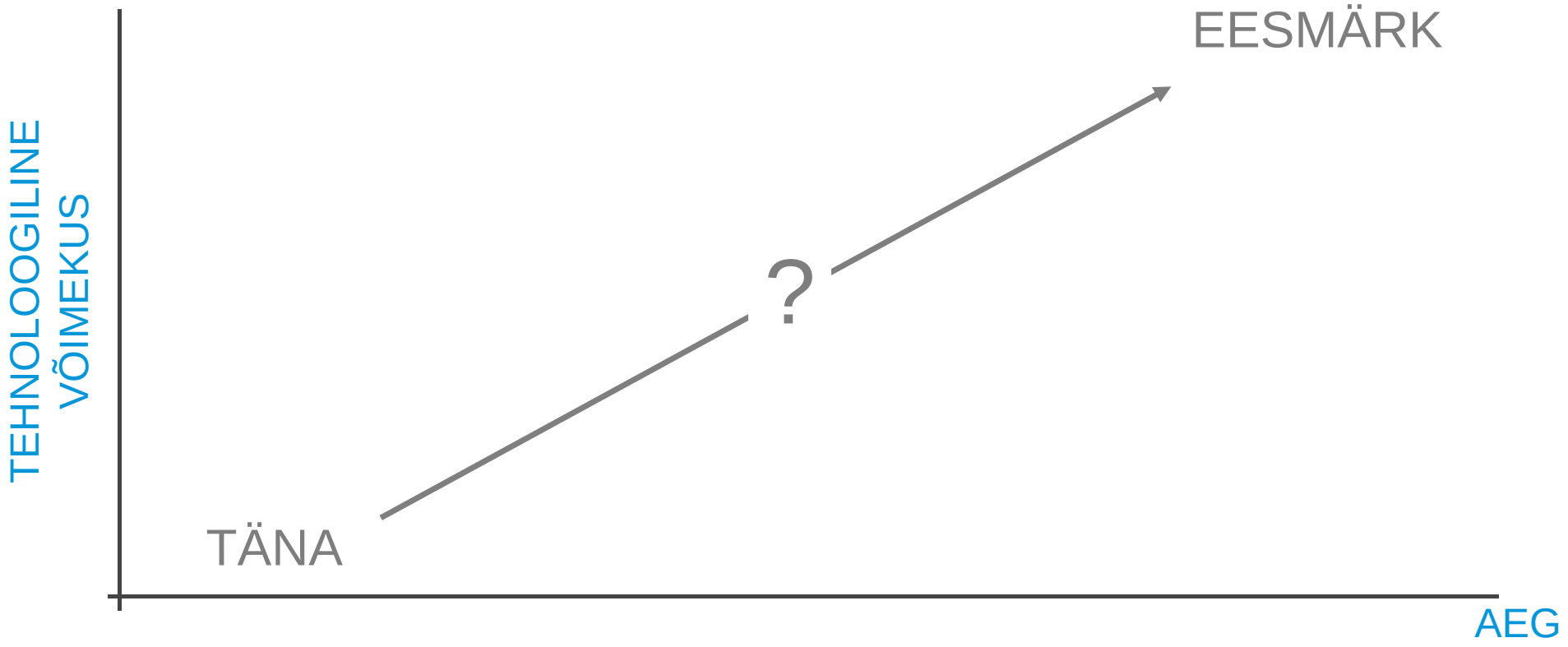
MONITORING & SAFETY

humancondition SAFETY, SMARTVID.IO, BUILDSAFE, einsite, CAPITAL CONSTRUCTION SOLUTIONS, SignOnSite, PILLAR TECHNOLOGIES, HEADLIGHT, ACKCIO, QwikSpec, MODUSTRI

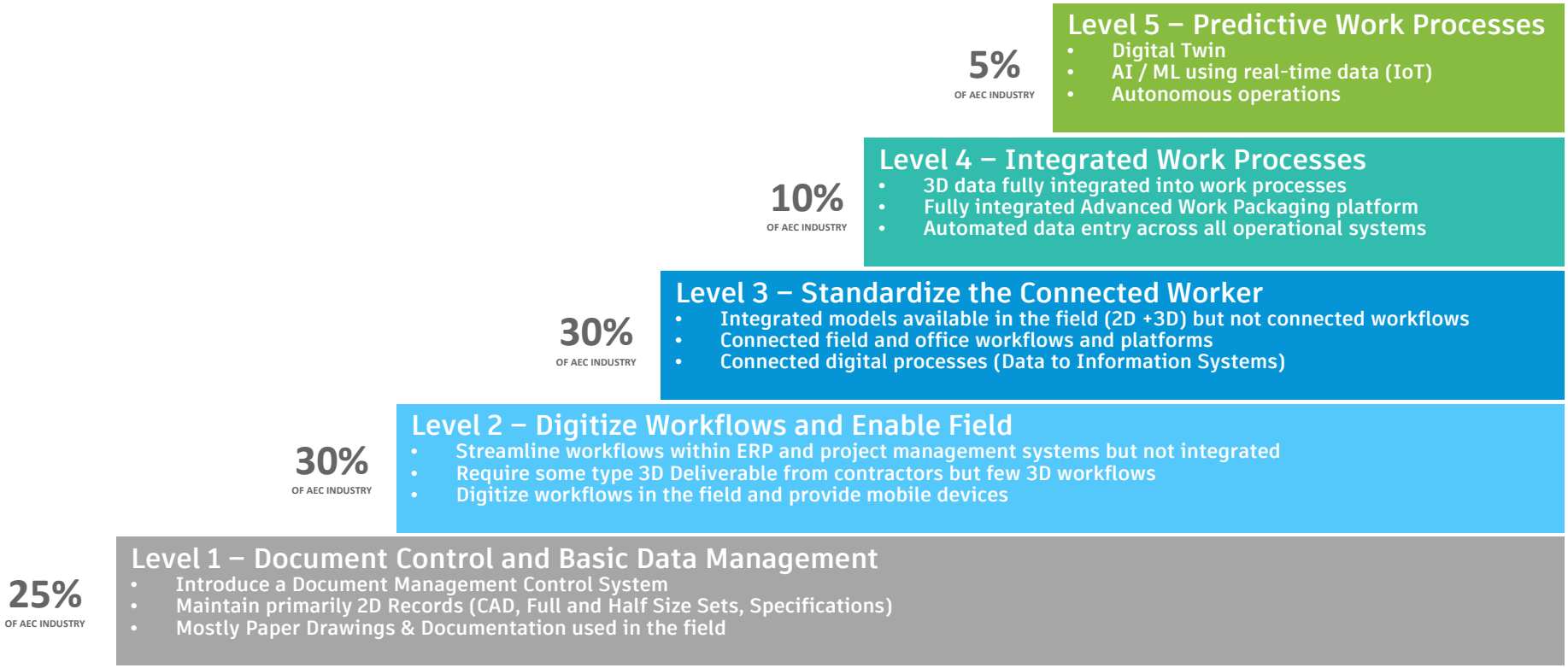
SECURITY & COMPLIANCE

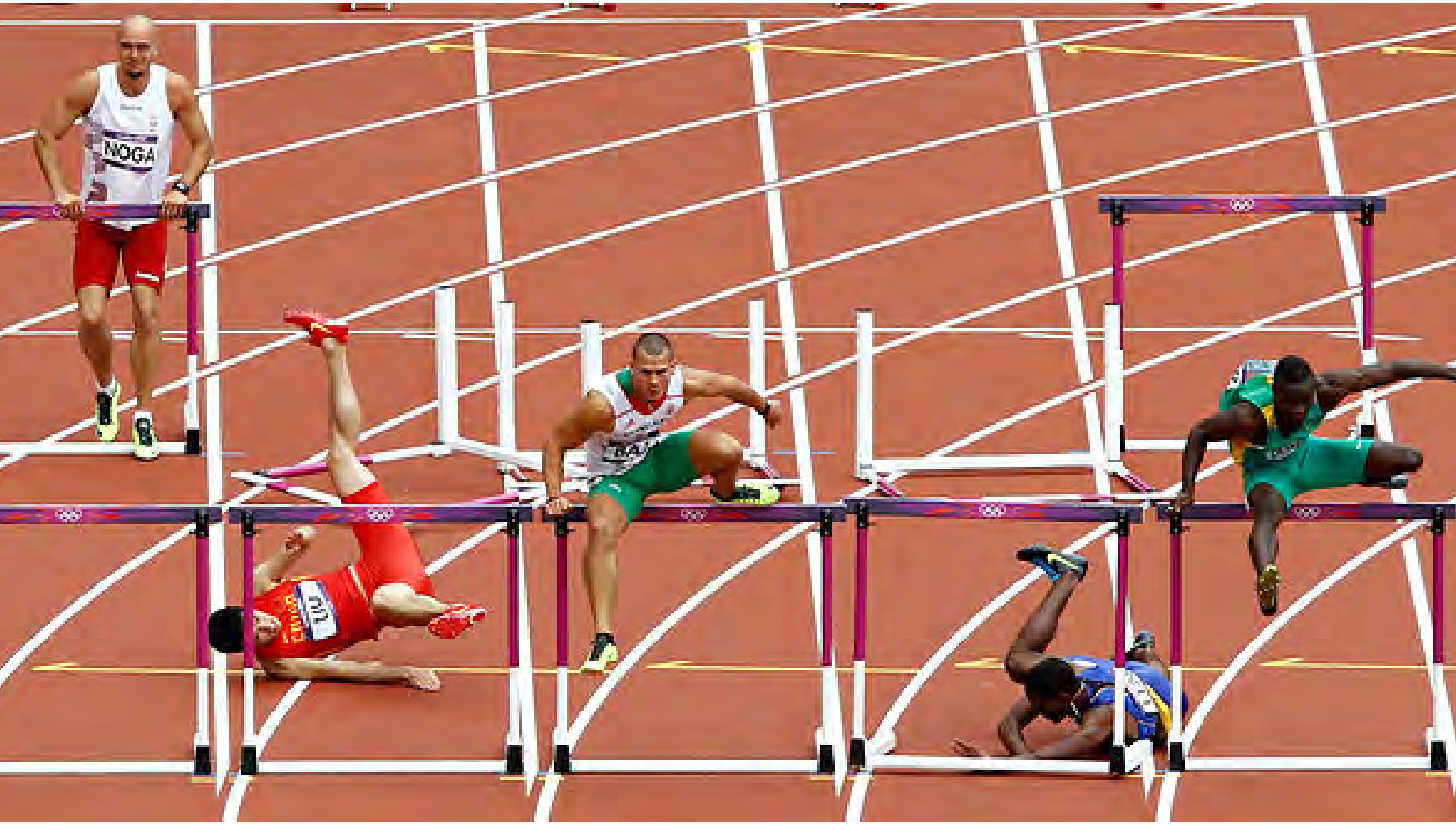
zlien, Buildmetric, RAKEN, BIOSITE

CBINSIGHTS


EESMÄRK
?
TÄNA
TEHNOLOOGILINE VÕIMEKUS
AEG

Innovatsioonitrepp



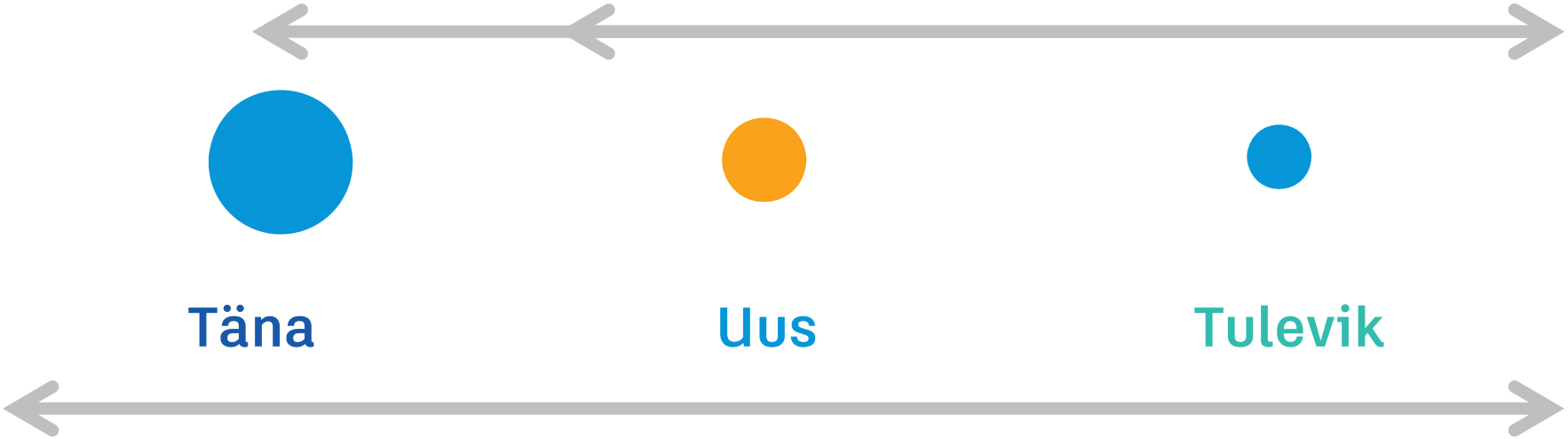

NOGA

TÄNA

UUS

TULEVIK

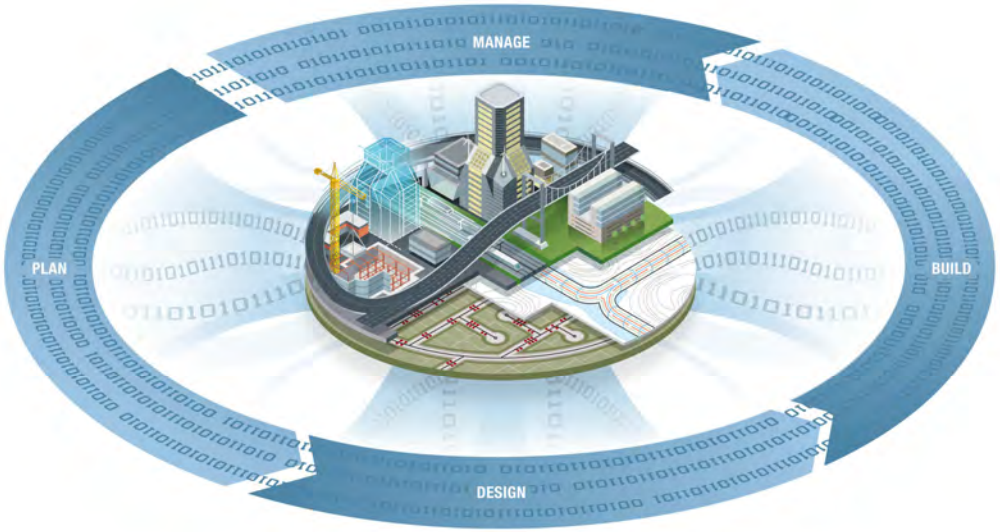
Innovatsiooni Juhtimine



Managing Your Innovation Portfolio, Harvard Business Review 2012, Bansi Nagji and Geoff Tuff

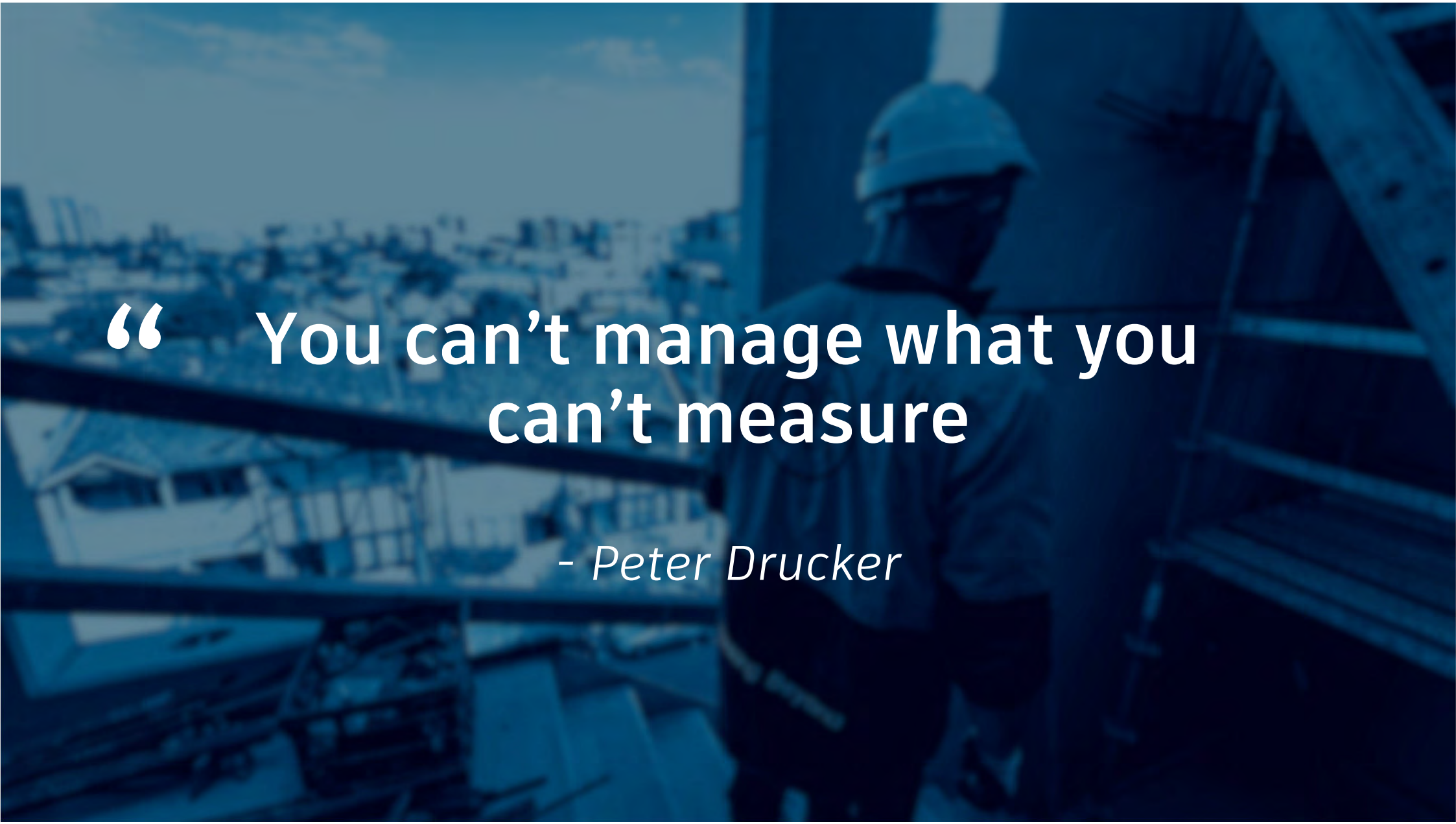
© 2018 Autodesk

Confidential–Not For External Use


MANAGE
PLAN
BUILD
DESIGN

Construction Site Inspection

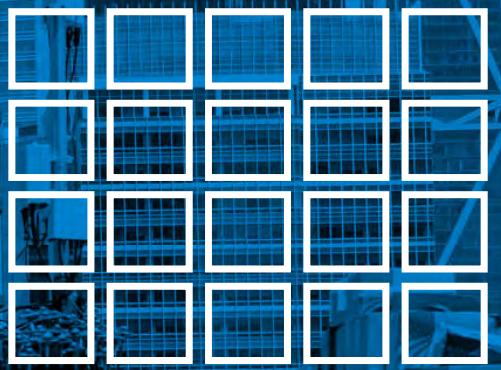
THIS IS FINE.


“ You can’t manage what you can’t measure
- Peter Drucker

DIGITISE

Andmete Kvaliteet

VS



Erinevad
Keskkonnad

Struktureeritud
Andmed

ROHKEM ANDMEID JA DIGITAALSEID PROTSESSE

Iga Päev...

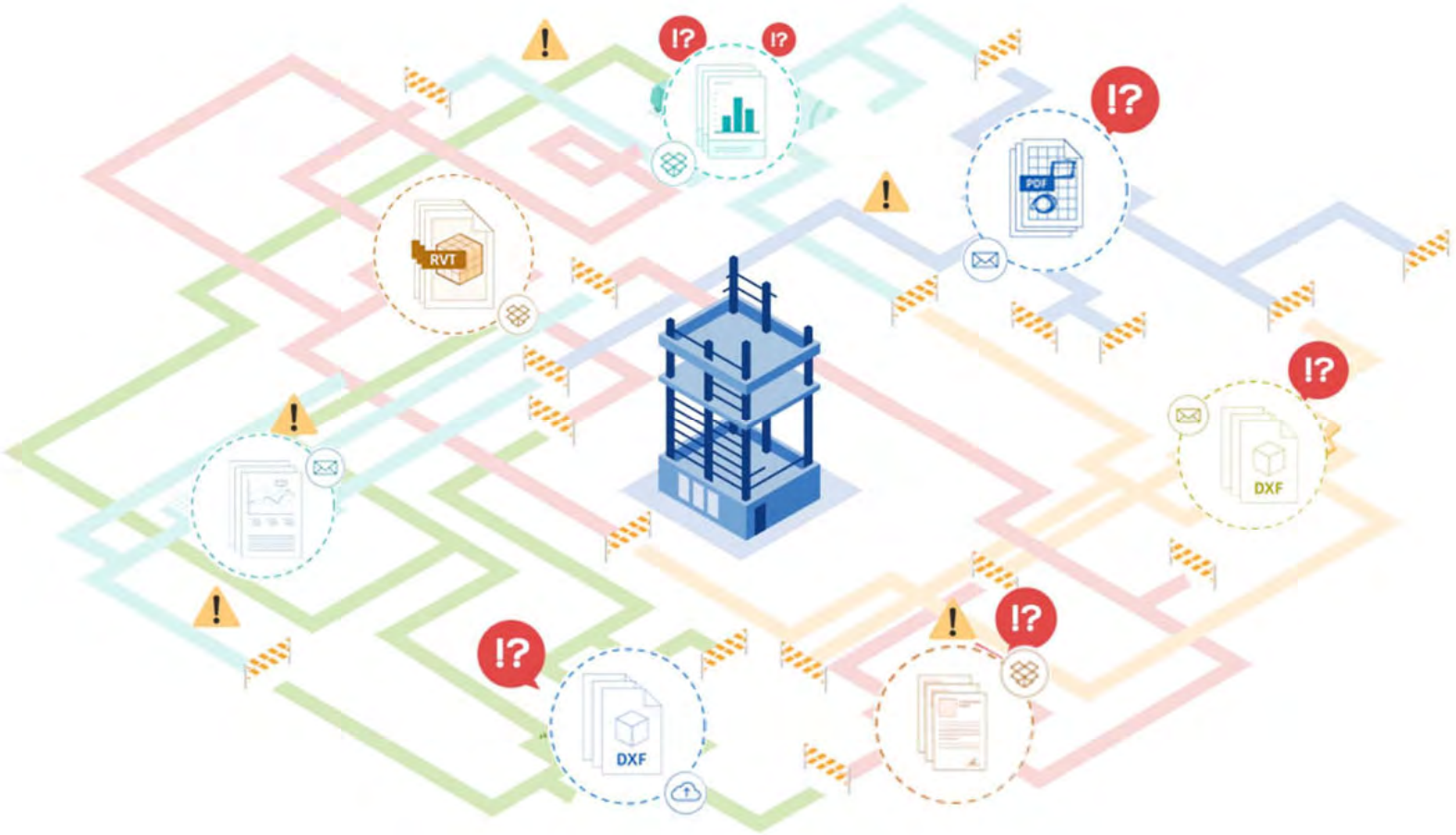
Tuhandeid probleeme ja muudatusi

95% kogu andmetest jääb ehitusprojektidel efektiivselt kasutamata

30%

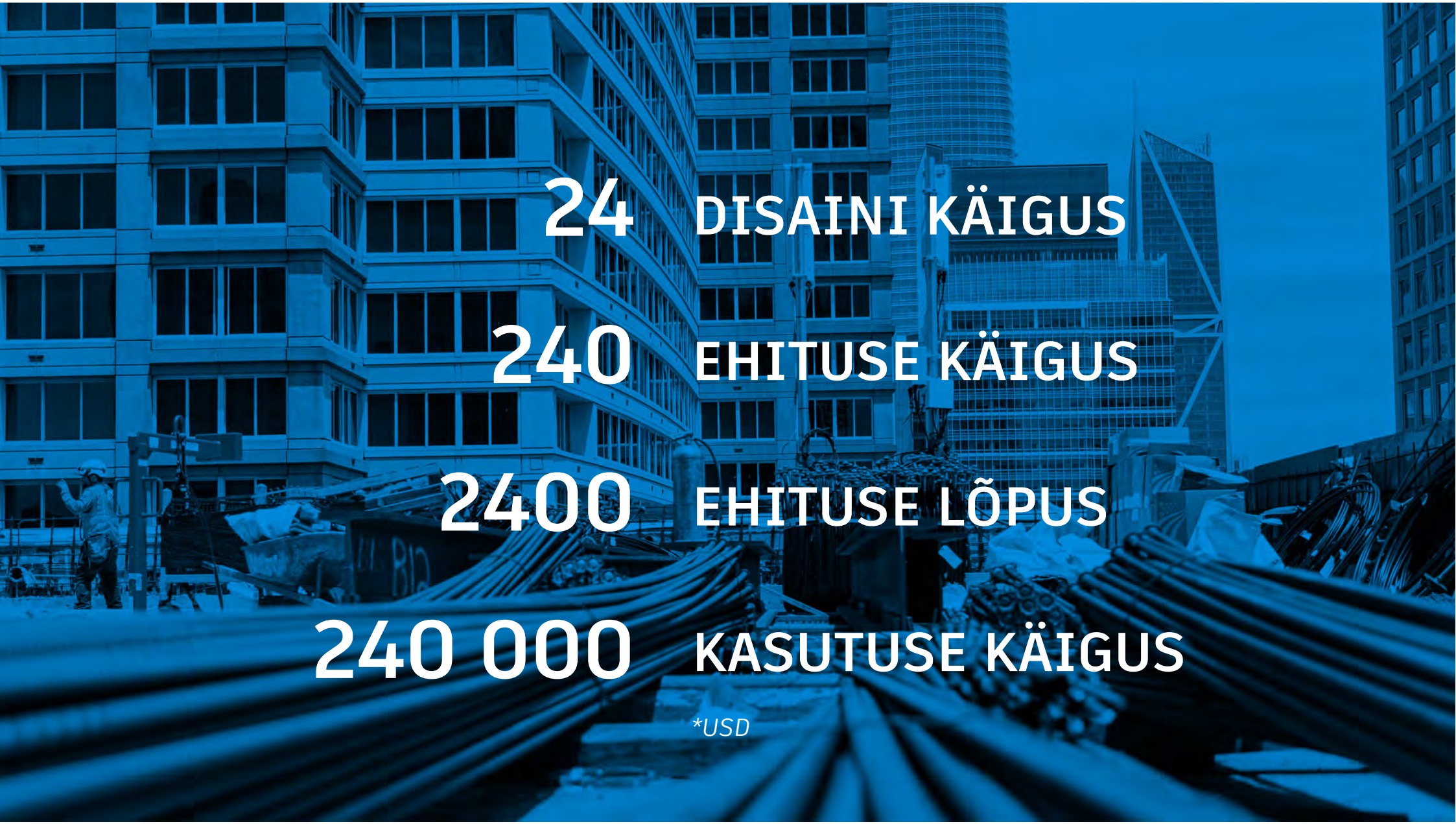
Disaini ja Ehituse käigus loodud andmetest ei jõua projekti omanikeni

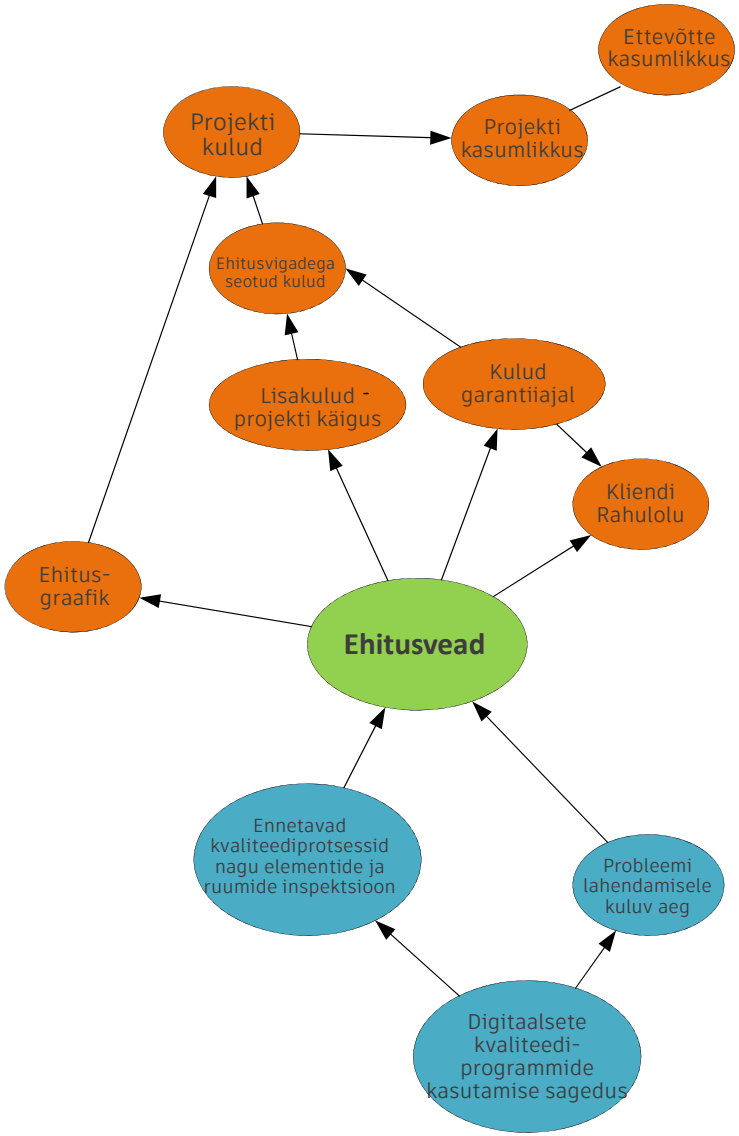
JBKnowledge Construction Technology Report FMI - 2018


!?
!?
!?
RVT
PDF
DXF
DXF

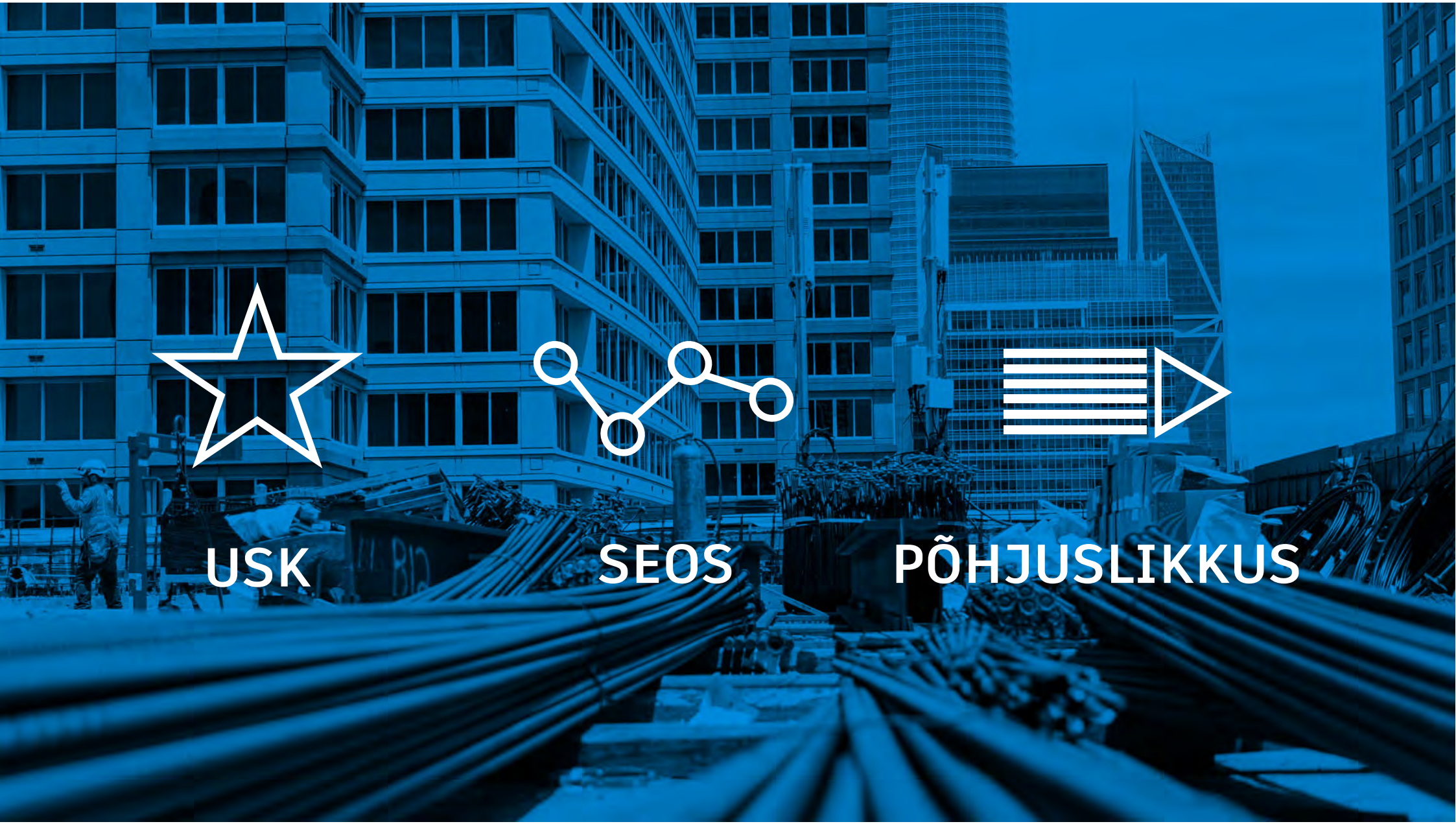
Reaktsioon või Ennetus

EHITUSPLATS
PROJEKTI MEESKOND
KVALITEEDI-KONTROLL
EHITUSVEAD
BEER
Canon
SHARP


24 DISAINI KÄIGUS
240 EHITUSE KÄIGUS
2400 EHITUSE LÕPUS
240 000 KASUTUSE KÄIGUS
*USD

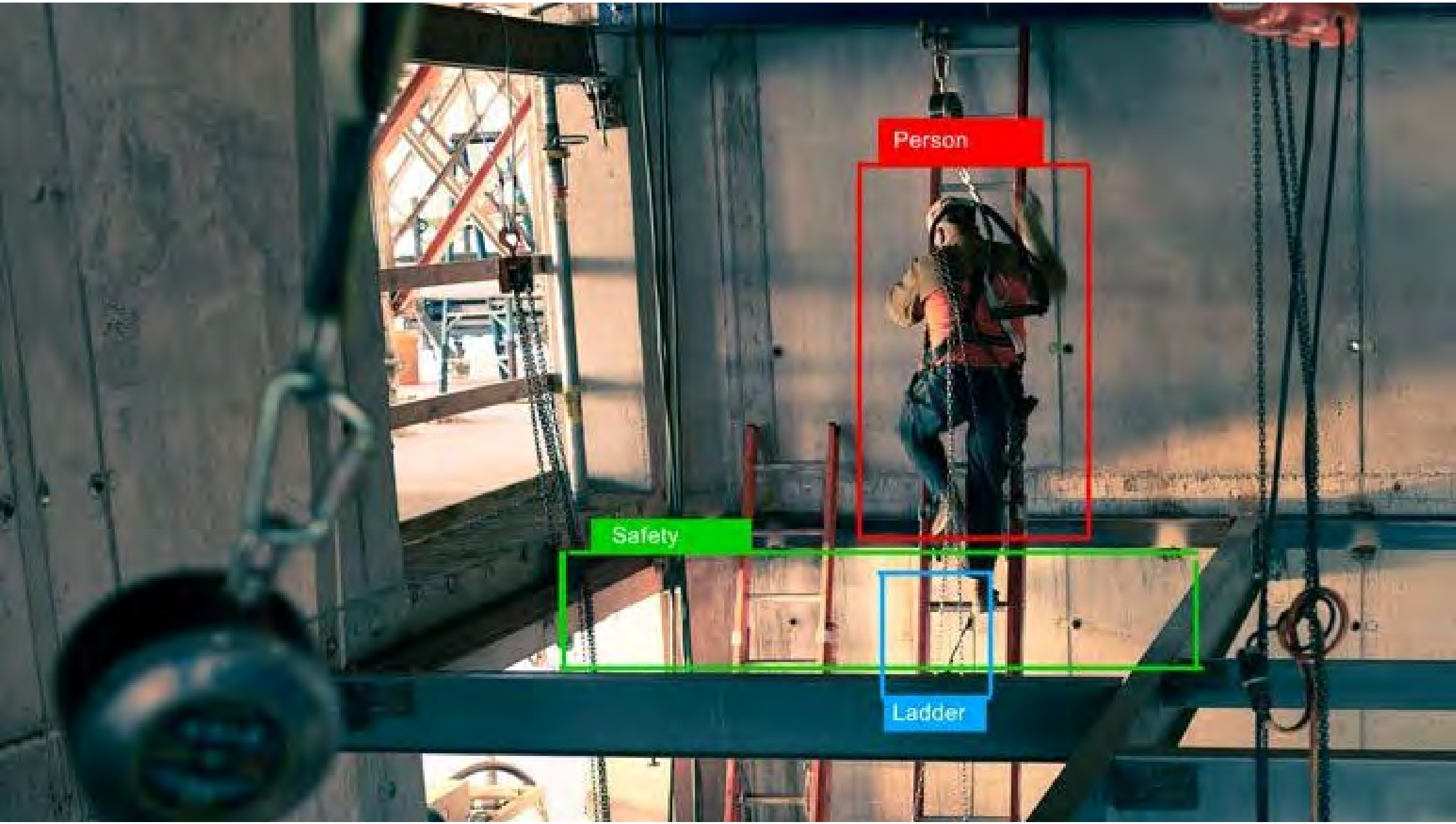


- Probleemide arv tüübi järgi
- Probleemide arv staatuse kategooria järgi (Lahendatud-Lahendamata-Ülevaatluseks valmis)
- Probleemide arv ettevõte-alltöövõtja kohta
- Probleemide avastamise tüüp (ülevaatus, piltide analüüs, jne)
- Probleemide tõstatamise sagedus/ kuus
- Lahendamiseks kuuluv aeg sõltuvalt vea kategooriast (Kriitiline kuni madal tähtsus)
- Lahendamiseks kuuluv aeg regionaalselt
- Lahendamiseks kuluv aeg iga projekti kohta
- Keskmine tõenäosus, et lahendus tuleb päeva/kuu/nädala jooksul
- Probleem avastatud ennatlikult või tagantjärgi
- Ennatlike probleemide tõstatamine / kuus
- Kvaliteedikontrolli vormide täitmise kogus projekti ja projekti tüübi kohta
- Kvaliteedikontrolli vormide arv regionaalselt
- Kvaliteedikontrolli vormide arv vormi tüübi kohta.
- % probleeme, mis avastati kvaliteedikontrolli käigus
    - Igas Regioonis
    - Projektil
    - Vormi tüübi kohta


USK
SEOS
PÕHJUSLIKKUS

DIGITISE
INTEGRATE

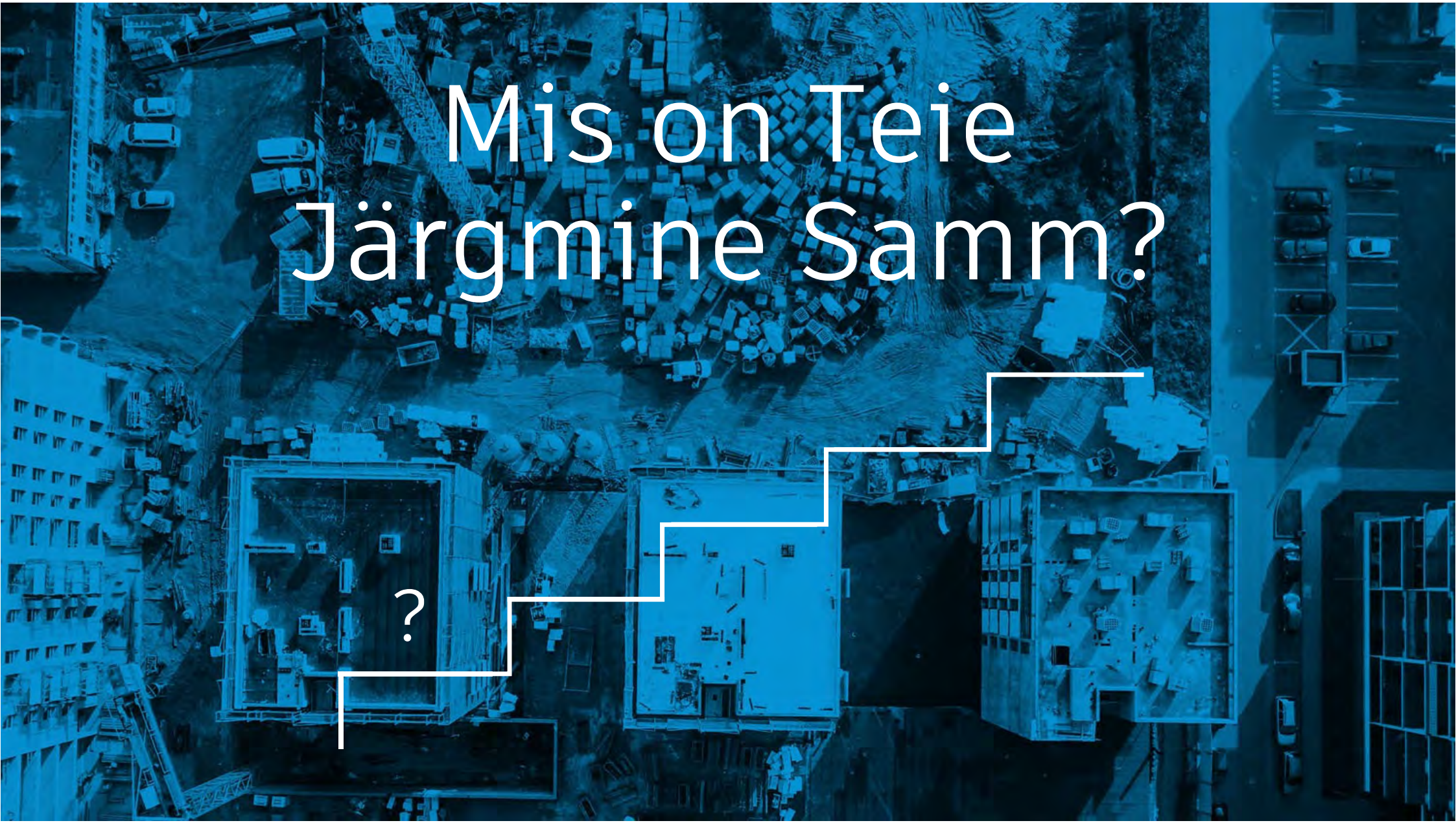
RVT
PDF
FORGE
DXF
DXF


Person
Safety
Ladder

DIGITISE
INTEGRATE
PREDICT

150 Millionit Probleemi
30 000 Projekti

https://bim360resources.autodesk.com/featured-content/bam-machine-learning-story


Mis on Teie
Järgmine Samm?
?

Autodesk and the Autodesk logo are registered trademarks or trademarks of Autodesk, Inc., and/or its subsidiaries and/or affiliates in the USA and/or other countries. All other brand names, product names, or trademarks belong to their respective holders. Autodesk reserves the right to alter product and services offerings, and specifications and pricing at any time without notice, and is not responsible for typographical or graphical errors that may appear in this document.

© 2018 Autodesk. All rights reserved.