



CONNECTED CONSTRUCTION

*IMPROVING VISIBILITY, COLLABORATION, PERFORMANCE,
AND SAFETY FOR ALL PROJECT PARTICIPANTS*



Glodon

Where construction teams spend and lose time

Optimal Activities

Project execution
and coordination

11.2
Hours

27.7%

Acceptable Activities

Communicating/interacting
with project stakeholders

8.2
Hours

20.3%

Optimizing the job
site and people

7
Hours

17.4%

Non-Optimal Activities

Looking for project
data/information

5.5
Hours

13.4%

Conflict resolution

4.7
Hours

11.6%

Dealing with
mistakes/rework

3.9
Hours

9.6%

35%

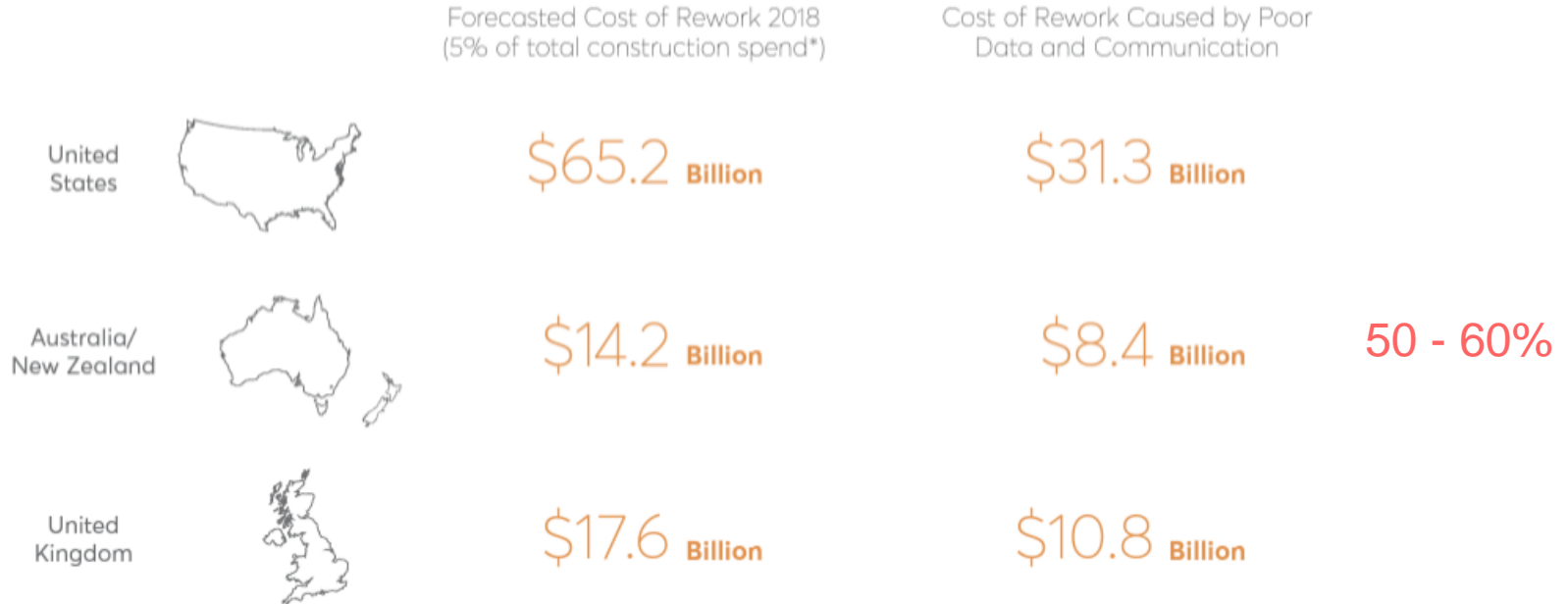
of working hours
are spent on non-
optimal activities

Costs of non-productive construction labour activities

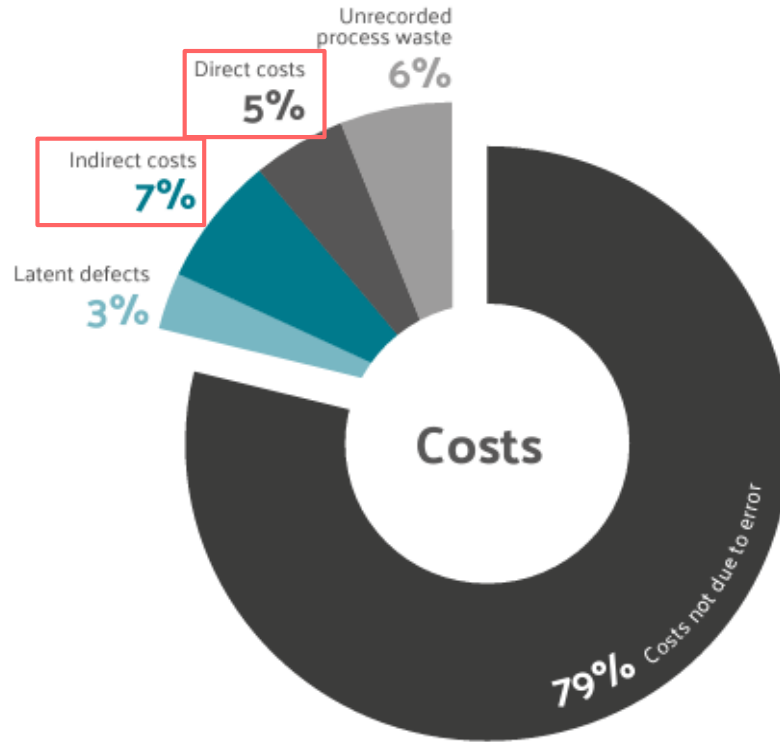


13 - 14%

Rework costs attributed to poor data



True cost of error

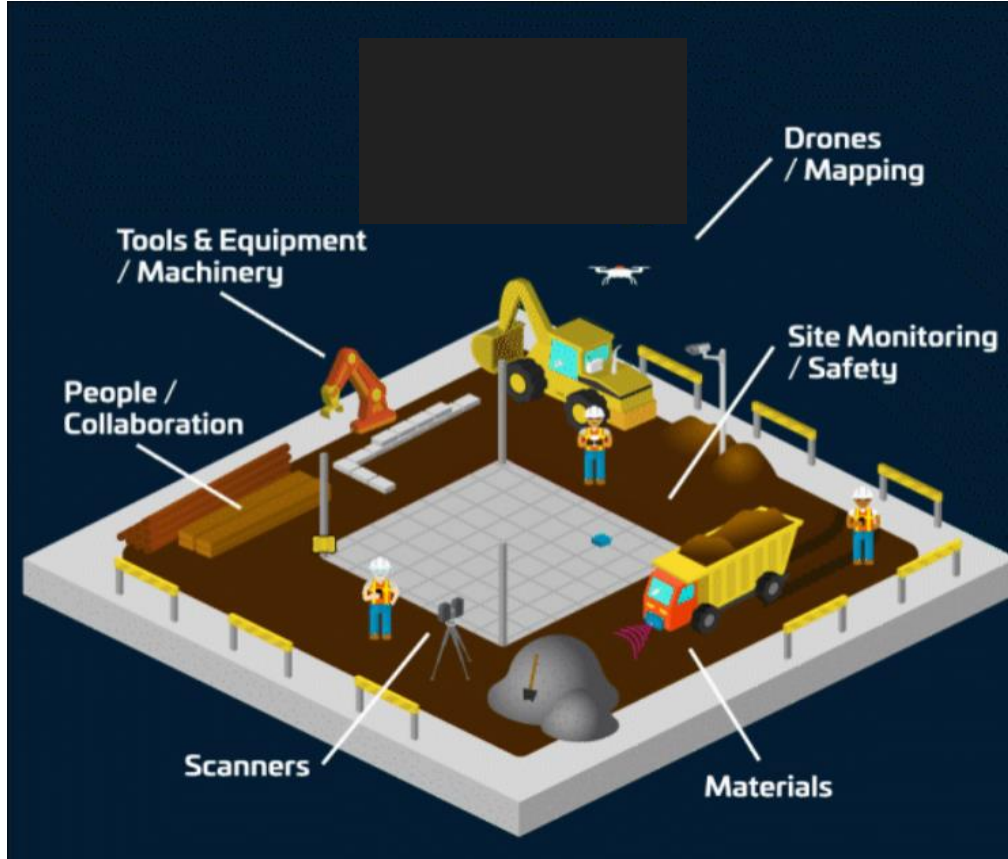




Connected Construction

An ecosystem of connected job sites, machines,
and workers that enhances operational
effectiveness and safety

Connected Construction



A dynamic, “always on” network providing a continuous flow of information and analytics

Connected Construction – Technologies



Robotics



Automation



3D printing



Autonomous
vehicles

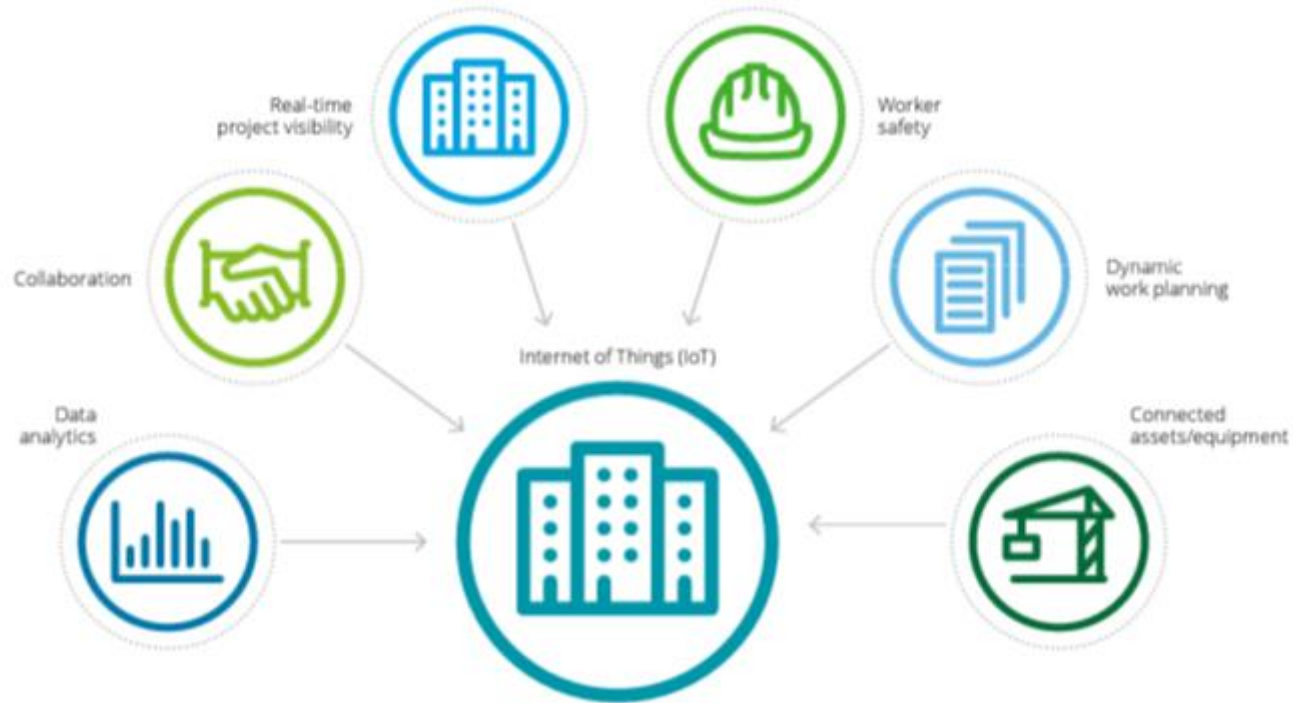


Unmanned
aerial vehicles
(UAVs)



Virtual and
augmented
reality (VR/AR)

Connected Construction - components



Connected Construction - benefits



DATA-BASED DECISION MAKING

- Informed decisions
- Evaluation of methods
- Accurate estimations and predictability



COOPERATION

- Enabling communication between participants
- Revealing and promoting collaboration possibilities



VISIBILITY

- Real-time monitoring of project progress
- Transparency of processes



SAFETY

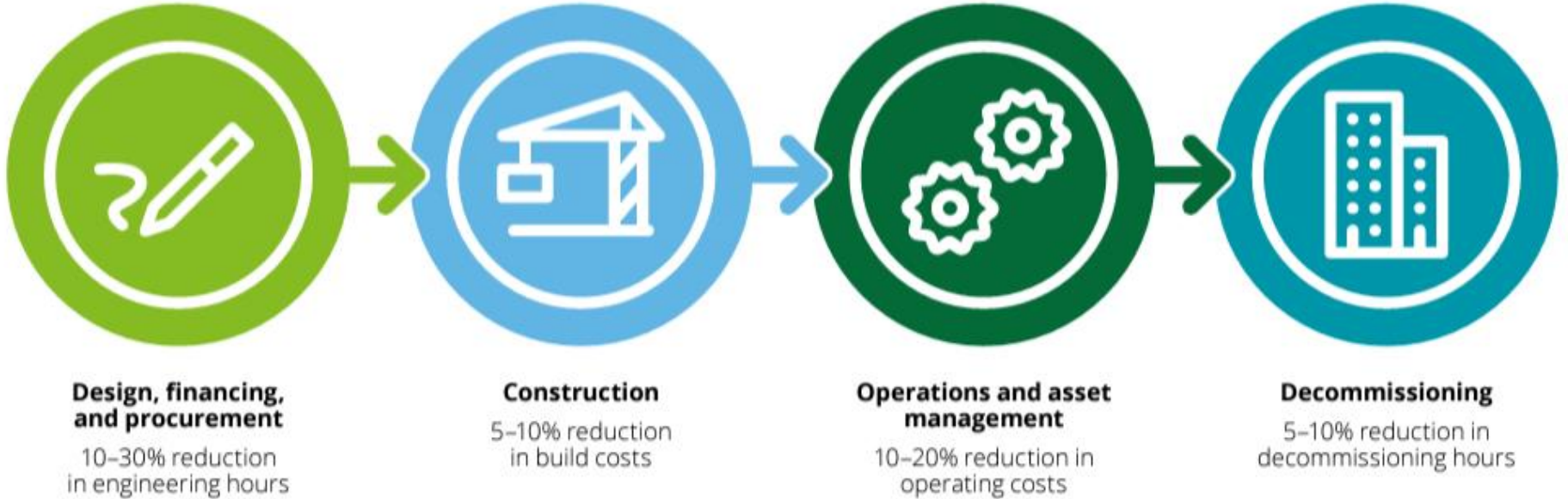
- Ensuring safety on the construction site
- Addressing issues without delay



SCHEDULING AND PLANNING

- Tracking materials and equipment
- Scheduling and planning according to performance

Connected Construction – unlock efficiencies throughout the project life cycle



Connected Construction – Path to transition



Think big

Develop vision for the **"connected construction journey"** of the organization based on long-term strategic priorities



Start small

Develop solutions and **demonstrate value** on a smaller set of the overall scope



Scale fast

Deploy and **scale validated** solutions across overall scope, and monitor closely for benefit realization

Connected Construction – first steps

- Adopt 3D (BIM) solutions
- Switch from 'pen & paper' to 'digital'
 - Defects management
 - Sign off from clients
 - Checklists
- Document management (central repository of documents)
 - access settings
 - version control
- Project progress with evidence (photos) – avoid client disputes

A digital transition is not just a change in technology, it is also a change in mindset.

Thank You!

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MagiCAD

<https://www.magicad.com/uk/construction-solutions/>