

Varun, Shaan, Jen

# Building-Block

DIGITALISATION OF PROGRESS ASSESSMENTS AND AUTOMATION OF PROGRESS PAYMENTS

FINANCE • WORK •

## Building companies collapse slowdown bites

'Wiped out': 'Horrorific' claim about Australia's collapsing construction industry

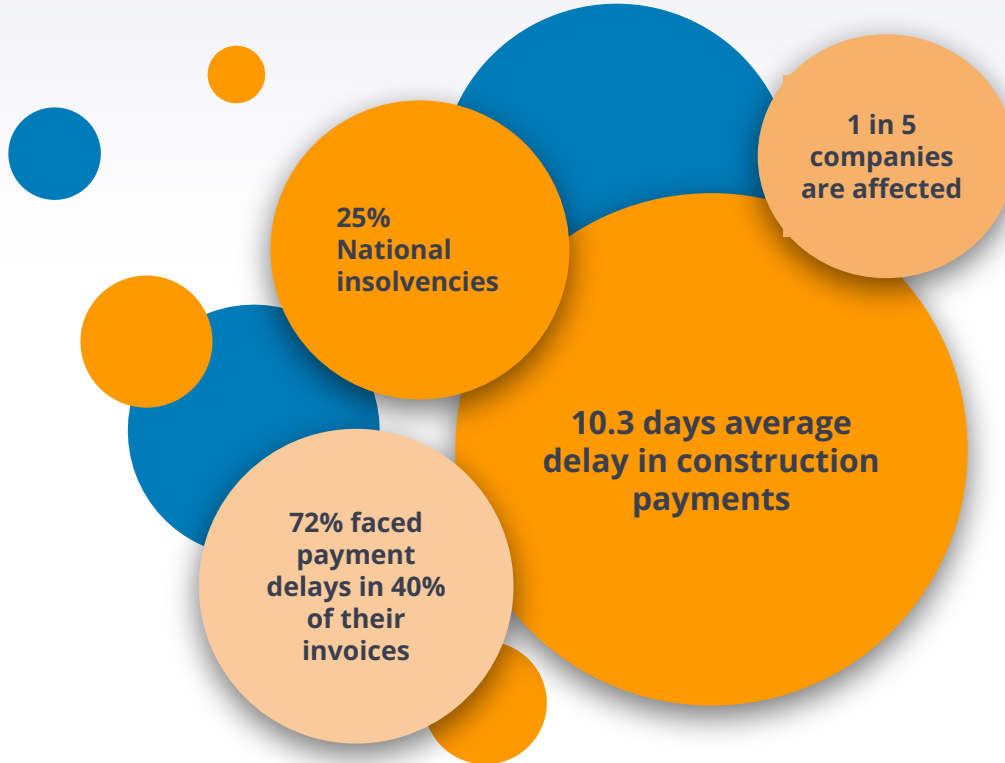
colleagues and family members as 80

**Table 2.3: Nominated causes of failure—Construction industry (2013–14)**

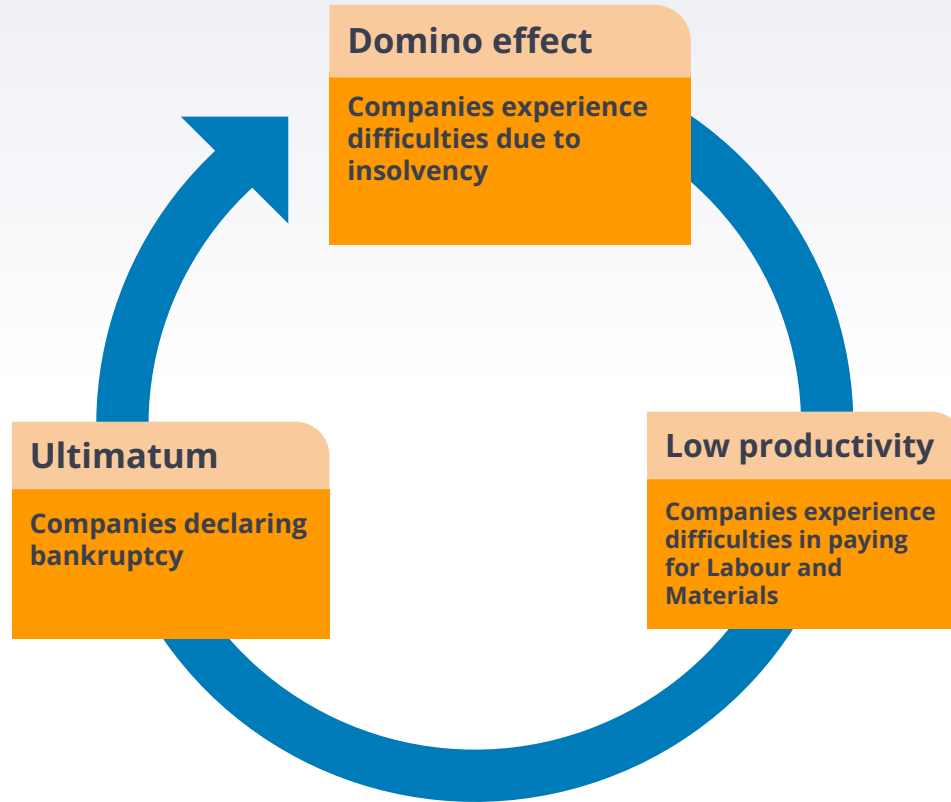
Causes of failure	2013/14	2012/13	2011/12	2010/11	2009/10
Under capitalisation	435	473	508	426	428
Poor financial control including lack of records	660	679	676	582	631
Poor management of accounts receivable	336	385	358	318	318
Poor strategic management of business	892	959	914	775	775
Inadequate cash flow or high cash use	1000	964	900	717	717
Poor economic conditions	17	30	25	26	26
Other	35	19	18	31	31
Directors	52	42	42	704	704
Other	698	698	698	66	66
Other	50	50	50	50	50

## Construction Industry Crisis: Companies Going Administration

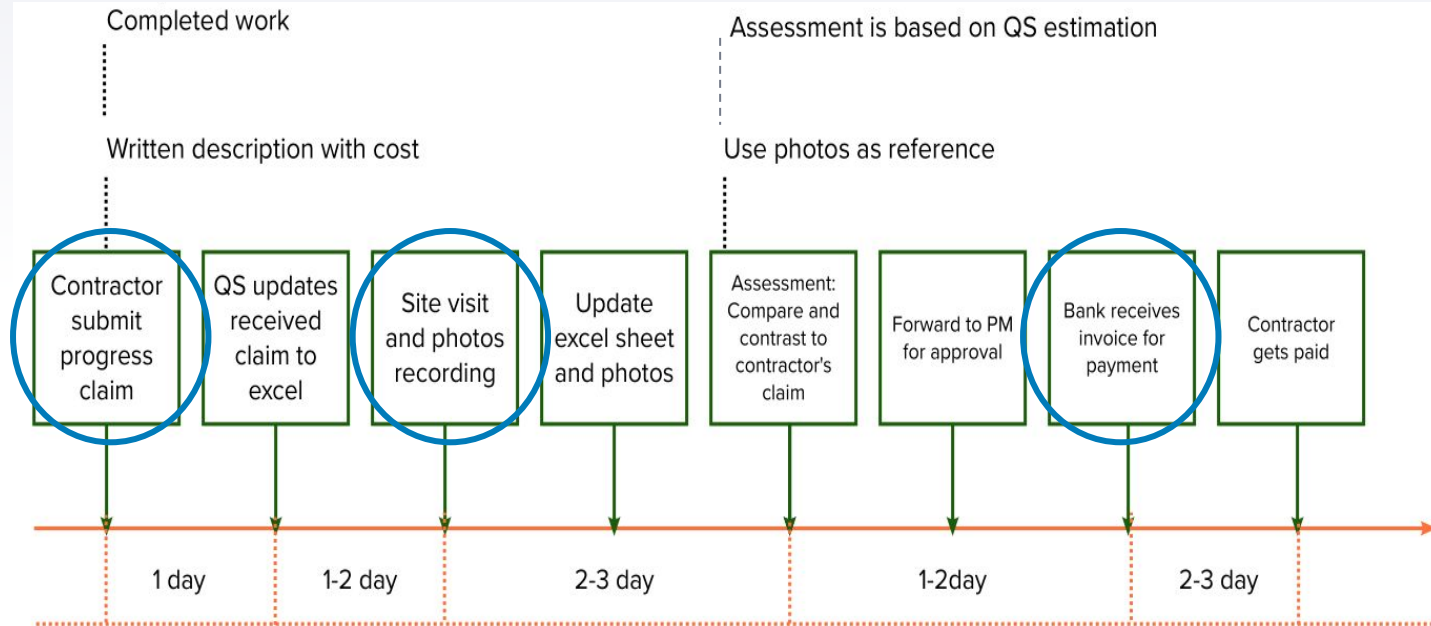
# Impacts of Delay in Progress Payments



# Results



# Causes

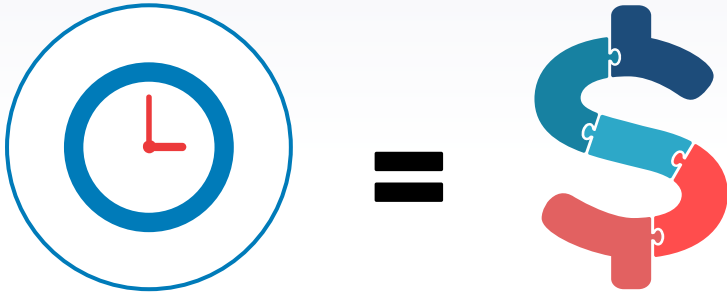


Total: 7-11 days per project per month  
(a QS would usually handle 3-8 project at the same time)



# A software-based solution

# Building-Block Aims



Shorter and More Effective Process



Improve Collaboration

# Solution: New Data Collection Method

## Point cloud camera



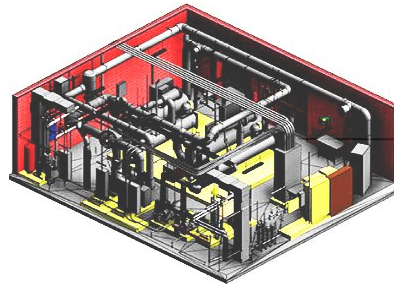
Scan and output



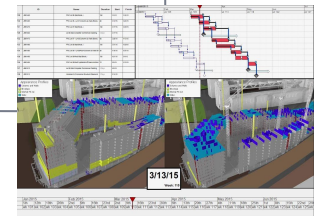
## BIM Model



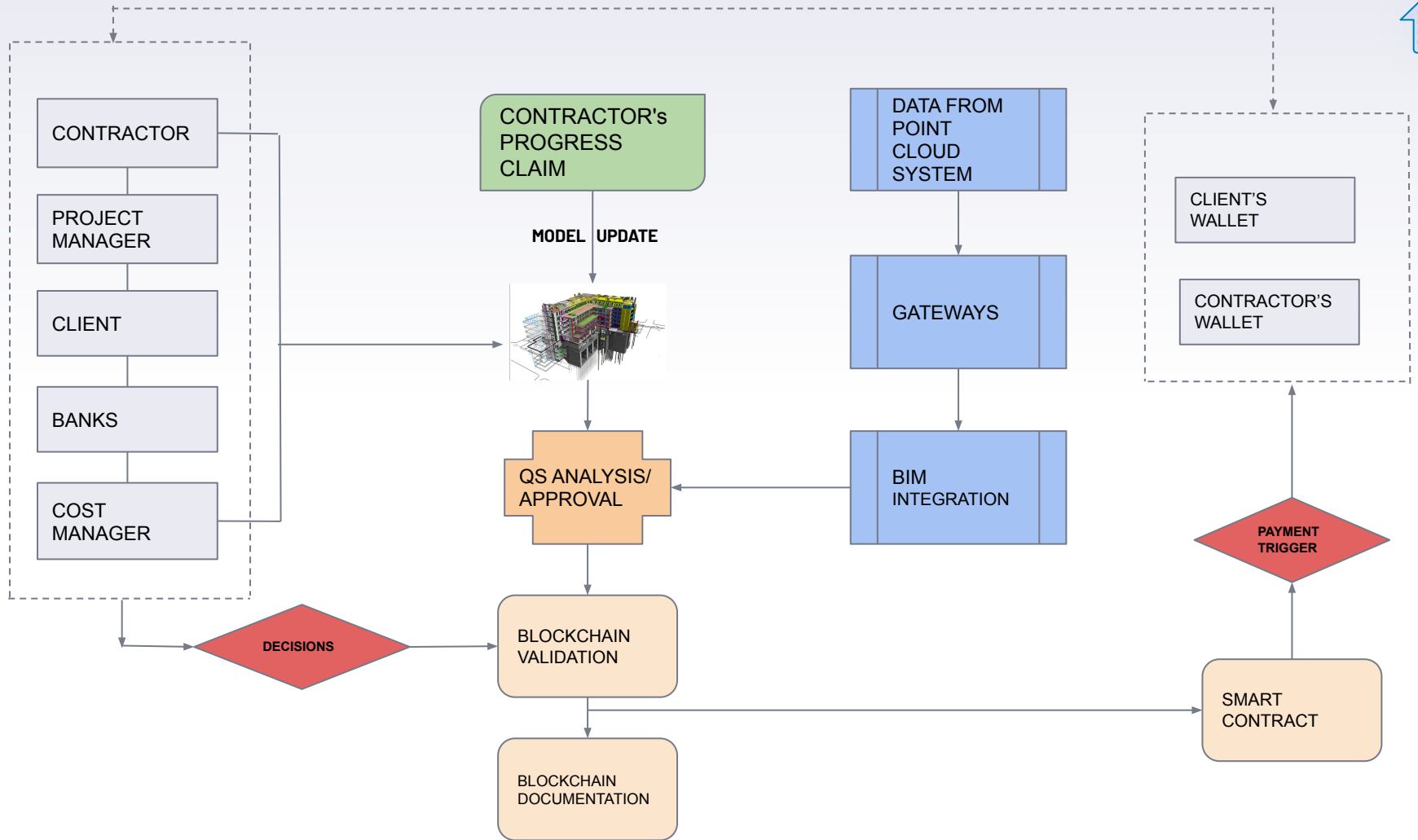
Contractor updated  
BIM model



Side-by-side  
comparison



Project timeline





# Consortium blockchain and smart contracts

Do we really need it? - YES



Transparency and Accountability

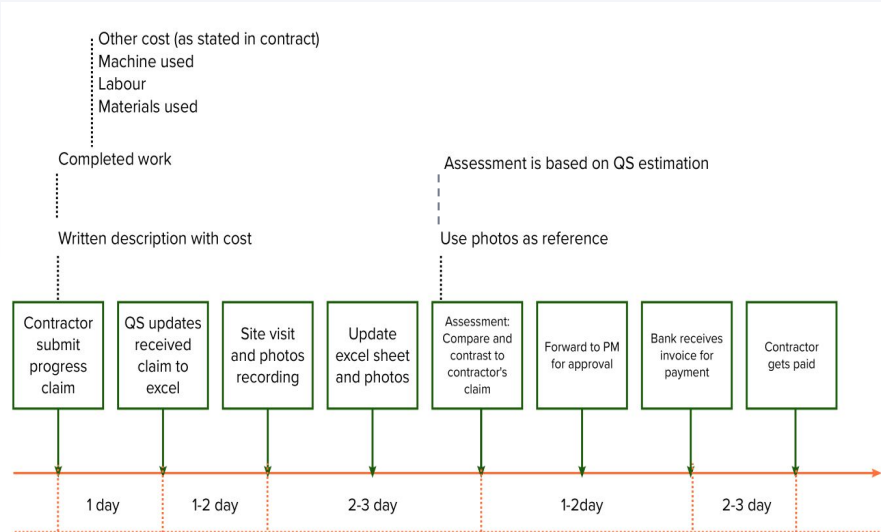


Fastest and Autonomous



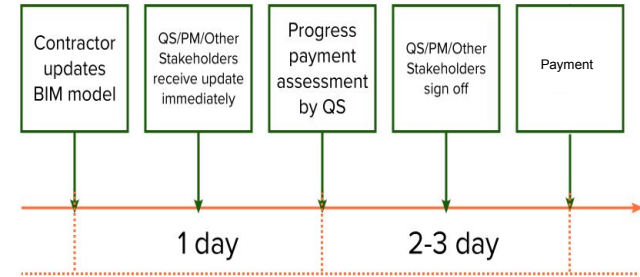
Efficiency and Reduced Conflict

## Conventional Progress Assessment and Claim Workflow



Total: 7-11 days per project per month  
(a QS would usually handle 3-8 project at the same time)

## Proposed Assessment and Claim Workflow



Total: 2-4 days per project per month  
(a QS would usually handle 3-8 project at the same time)

**7-11**  
**days**



**2-4**  
**days**

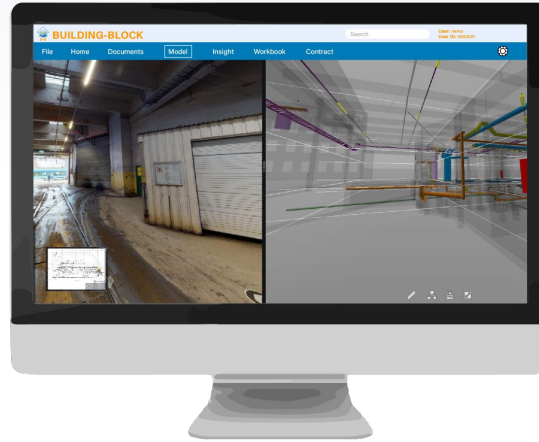
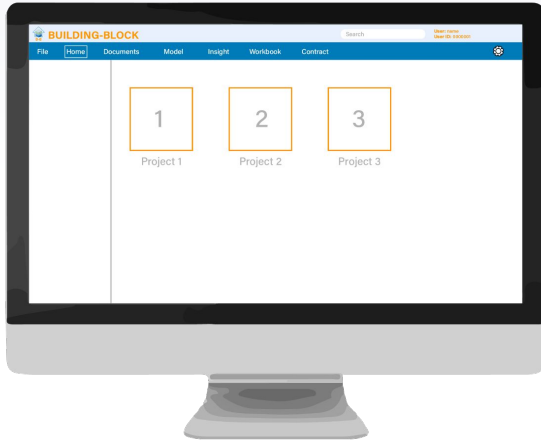
# Benefits

1. Provides transparency and monitoring capabilities
2. Provides safety, security and privacy
3. Reduced documentation time
4. Reduction in wait period for the contractor which increases his cash flow and improves the relationship with the client

# Limitations

1. The location of the camera needs to be changed/placed with utmost accuracy.
2. Coding of smart contracts needs to be accurate.
3. Onboarding and cost of setting up may be higher but will reduce as more people get involved.
4. Measurement of on site materials can be really challenging.

# Proposed Interface

[illegible]

## CLIENT

- 1 Quantity surveyors/Quantity surveying firm are the primary clients.

## SUBSCRIPTION SERVICE

Every user/Firm will be charged on a monthly basis based on the number of licenses they hold and the amount of storage they require

2


## CLIENT SPECIFIC INTERFACE

- 3 If the user requires additional features/services they can be integrated to the software based on their requirements .




## \$99/Month

Maximum users: >10

- 
- ✓ 500 GB cloud storage
  - ✓ Option for more storage
  - ✓ Collaboration hub
  - ✓ Client specific interface


## \$149/Month

Maximum users: 2-10

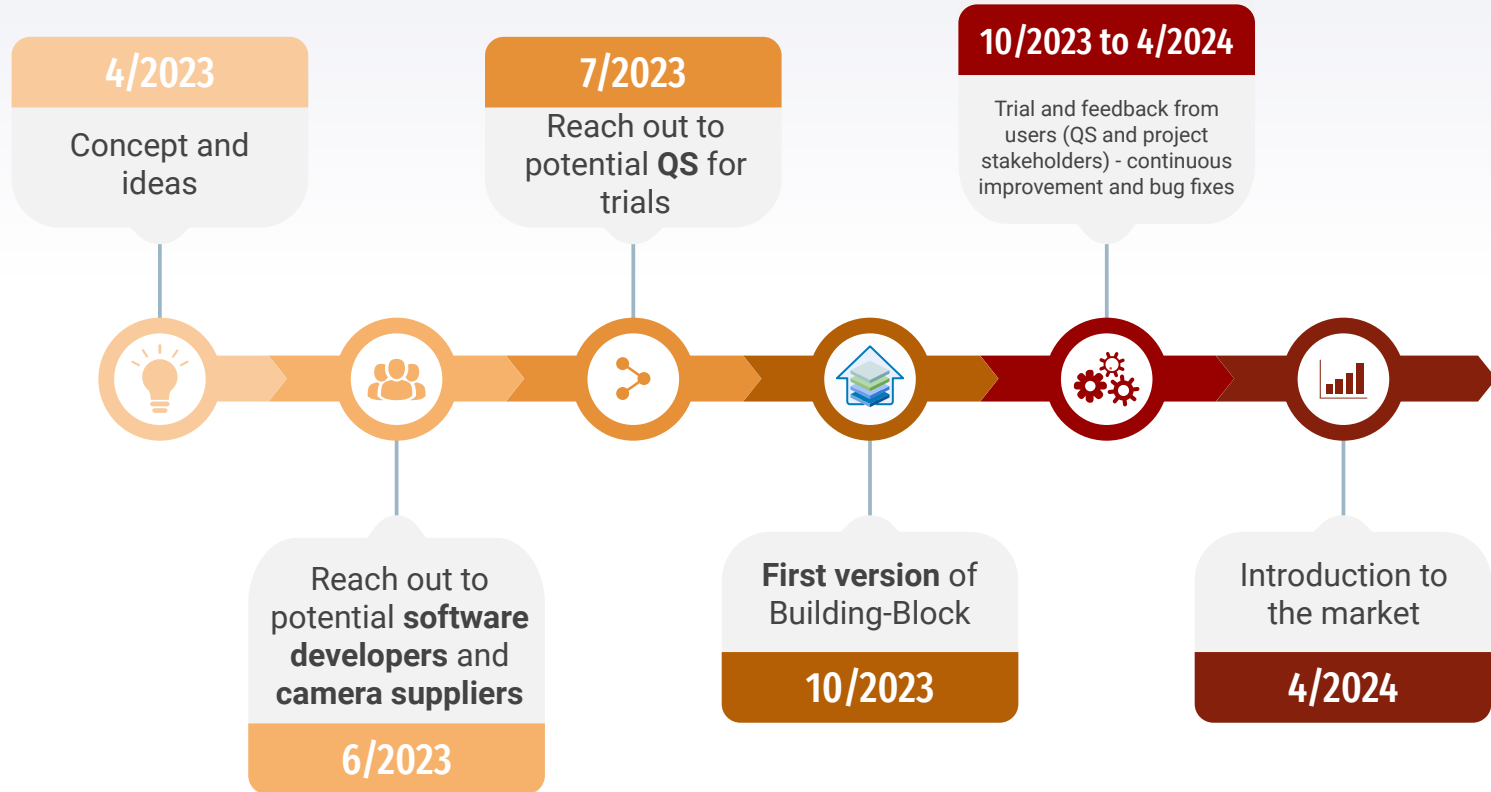
- 
- ✓ 100GB cloud storage
  - ✓ Option for more storage
  - ✓ Collaboration hub
  - ✗ Client specific interface

## \$199/Month

Maximum users: 1

- 
- ✓ 5GB cloud storage
  - ✗ Option for more storage
  - ✗ Collaboration hub

# Building-Block Roadmap





# Thank You!

FINANCE • WORK •

## Building companies collapse slowdown bites

'Wiped out': 'Horrorific' claim about Australia's  
collapsing construction industry

## Construction Industry Crisis: Companies Going Administration

**Table 2.3: Nominated causes of failure—Construction industry (2013–14)**

Causes of failure	2013/14	2012/13	2011/12	2010/11	2009/10
Under capitalisation	435	473	508	426	428
Poor financial control including lack of records	660	679	676	582	636
Poor management of accounts receivable	336	385	358	318	318
Poor strategic management of business	892	959	914	775	775
Inadequate cash flow or high cash use	1000	964	900	717	717
Poor economic conditions	17	30	25	26	31
Personal disaster	35	19	18	42	34
Directors	52	698	704	66	15
50					