Regenerate Construction Industry

with Digitized Management

5 Nov 2019











Project Management Tools – 3 Areas

Information Management

Progress & Quality Assurance

Digital Operation Platforms
e.g. Novade / SnagR

Project Resource Management





Construction is a Human-Centric Business



Can they (ever) get married?





A Long Journey of R&D Persistence

2016	Pilot testing (Handover defect inspection - SnagR)			
2018	 Switched solution to cover (Novade) Handover inspection Safety & Environmental Quality assurance Factory floor management 	 Advantages Handle complex defect workflows Flexible cost model More platform neutral 		
Present	Rollout to all projects • HK Project Sites • Oversea Production Factories			



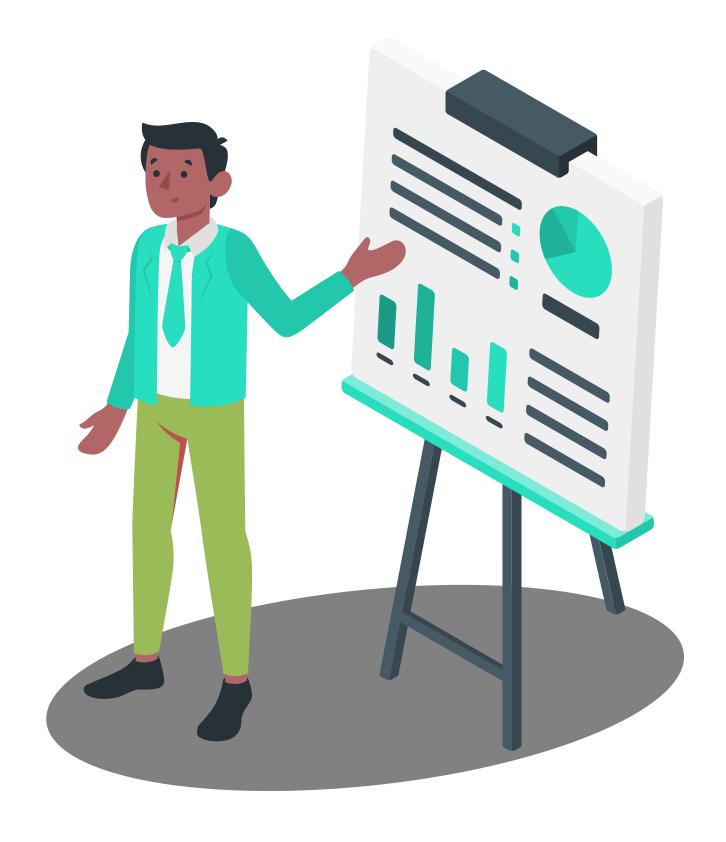
Many Facets of Errors and Try

Quality

- Production quality control (Off-site)
- Construction quality assurance (On-site)
- Handover defect inspection

Safety & Environmental

- Non-conformance report (NCR)
- Permit to Work (PTW)
- Safety/Environmental forms (Example: 合資格人士委任書)







The Goodwill of a Digital Management Platform

Enhancement

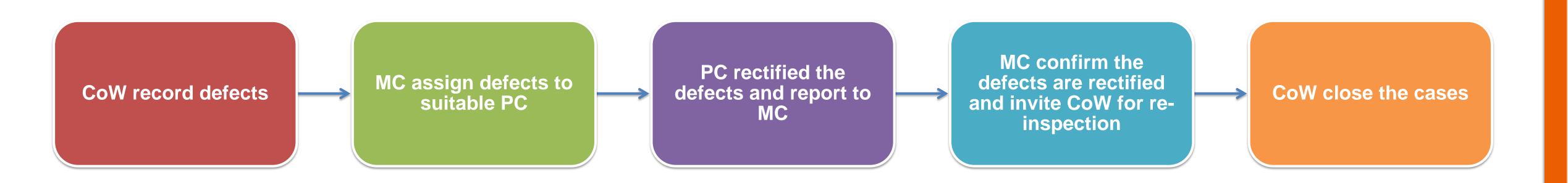
- Streamline operations with digitalized workflow
- Proper and organized record keeping
- Progress tracking
- Paperless



A Digitized Workflow Concerns Human – Defect Tracking

Involved Parties

- Clerk of Works (CoW)
- Main Contractor (MC)
- Package Contractors (PCs)



A Killer-App Solution, or any Better Around?







Select the location

Select defect type

Record defect (Photos, comment, Pin on floor plan)

MC to confirm the Defects and then assign PC to rectify





PC rectified defect and inform MC to check

MC confirm the completion of rectification

MC inform CoW for re-inspection

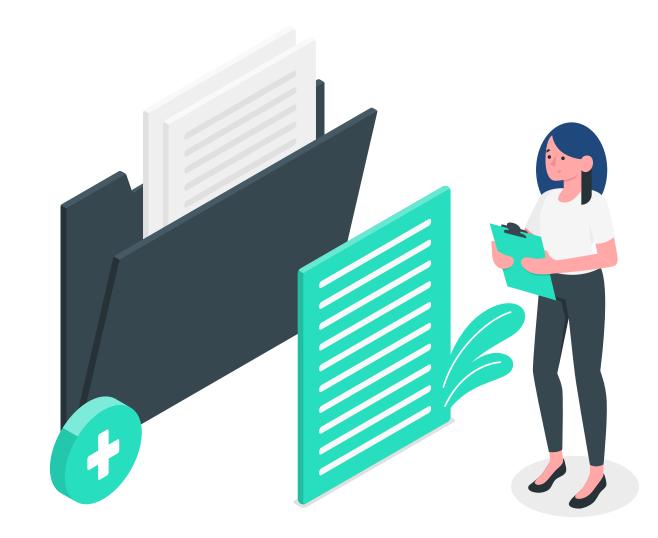
CoW confirm and close the case



A Digitized Workflow Concerns Human – Work Permit

Involved Parties

- Frontline staff
- Package Contractors (PCs)







Fruit of a Mediated Marriage







Project Management Tools - 3 Areas







For the Better Industry



Are we marriage-counseling?

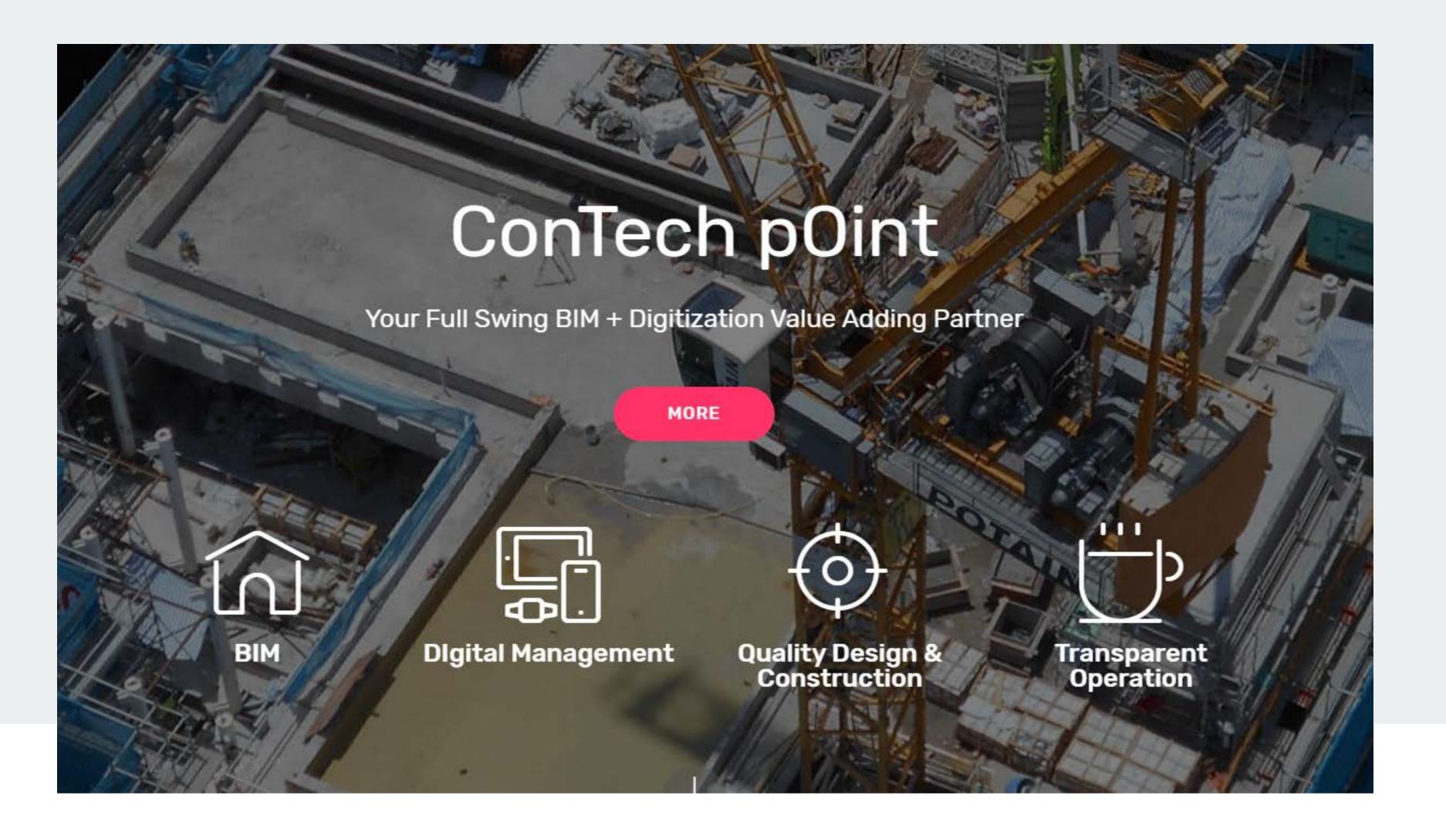






A Spin-off Partner for Construction Industry







ConTech pOint



Who We Are

We are a group of young professionals dedicated to better serve our built environment. A growing team of more than 100, we serve the construction and design sector for a decade with multidiscipinary and quality service as our core mindset. We are passionate in technology and have been applying digital methods to deliver design and construction throughout our practices.







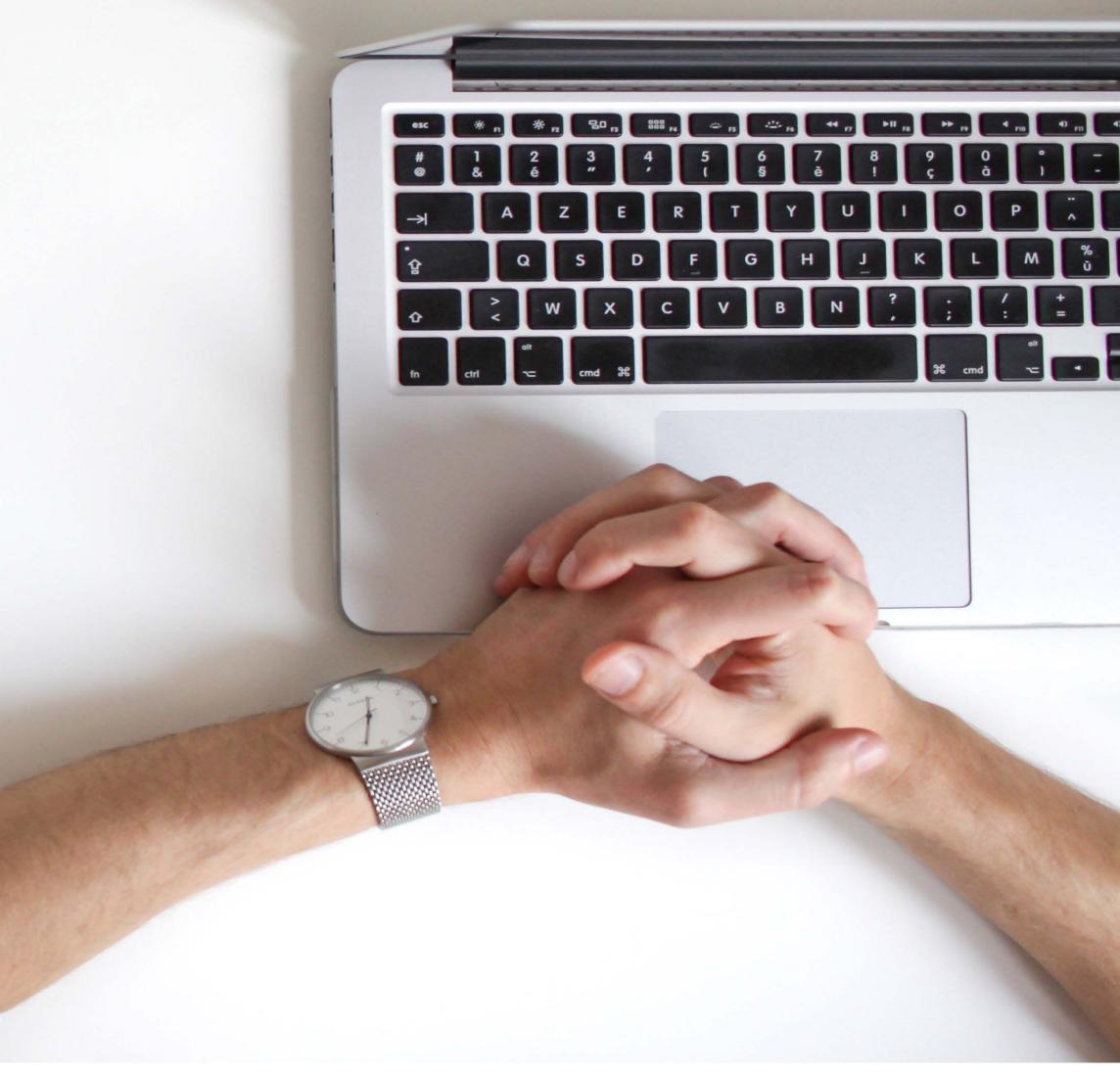






Construction Information Anywhere

a cloud-based collaborative platform developed by New World Construction for Project Information and Workflow Management.



Patent



The CIA platform, first of its kind in Hong Kong, had been granted patent (no. HK1251889) by Patents Registry Intellectual Property Department under the Patents Ordinance (Chapter 514)





CIA - as an Common Data Environment

建築科技實現室 Simplify your Task·Realise your Value

- (CDE)
- Real-name system to login
- Control by user group permission access
- HTML5 and WebGL Rich media capable



Document
Control System
(DCS)

Design Information Access

- 1. Drawing
- 2. Animation
- 3. BIM
- 4. VVMU
- 5. 3D survey

Centralized database for project information storage and be shared among all project stakeholders with dedicated levels of security control.





Users

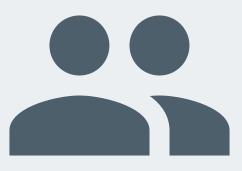












1,100+ Users













150+ Companies

















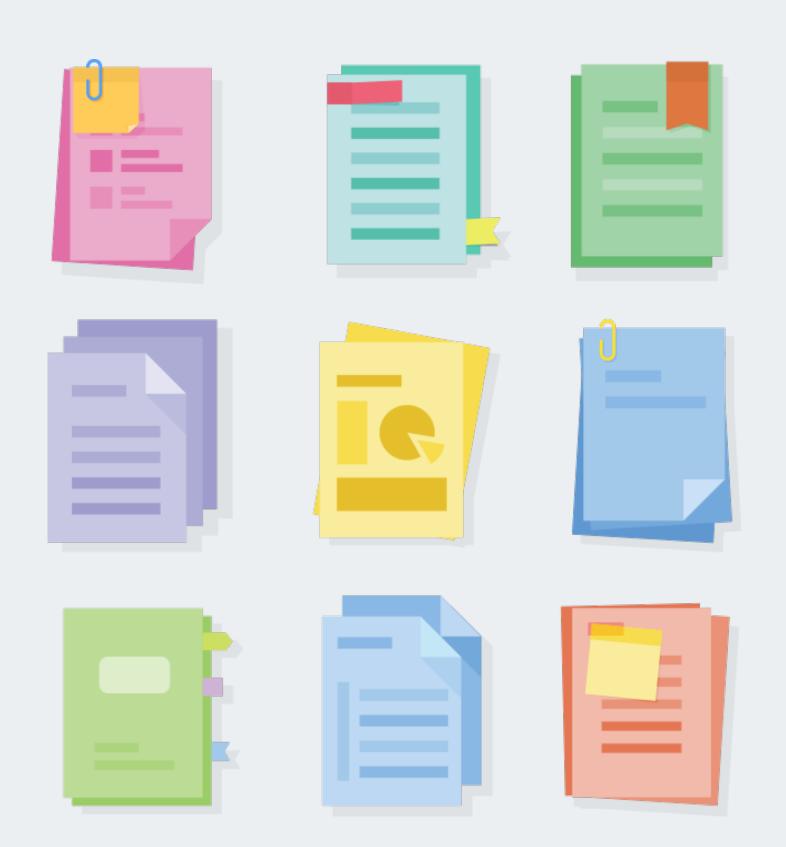
LWK +PARTNERS











Manage scattered information and their interactions

Generated from project life cycle, make sure project team is using the latest information to coordinate.

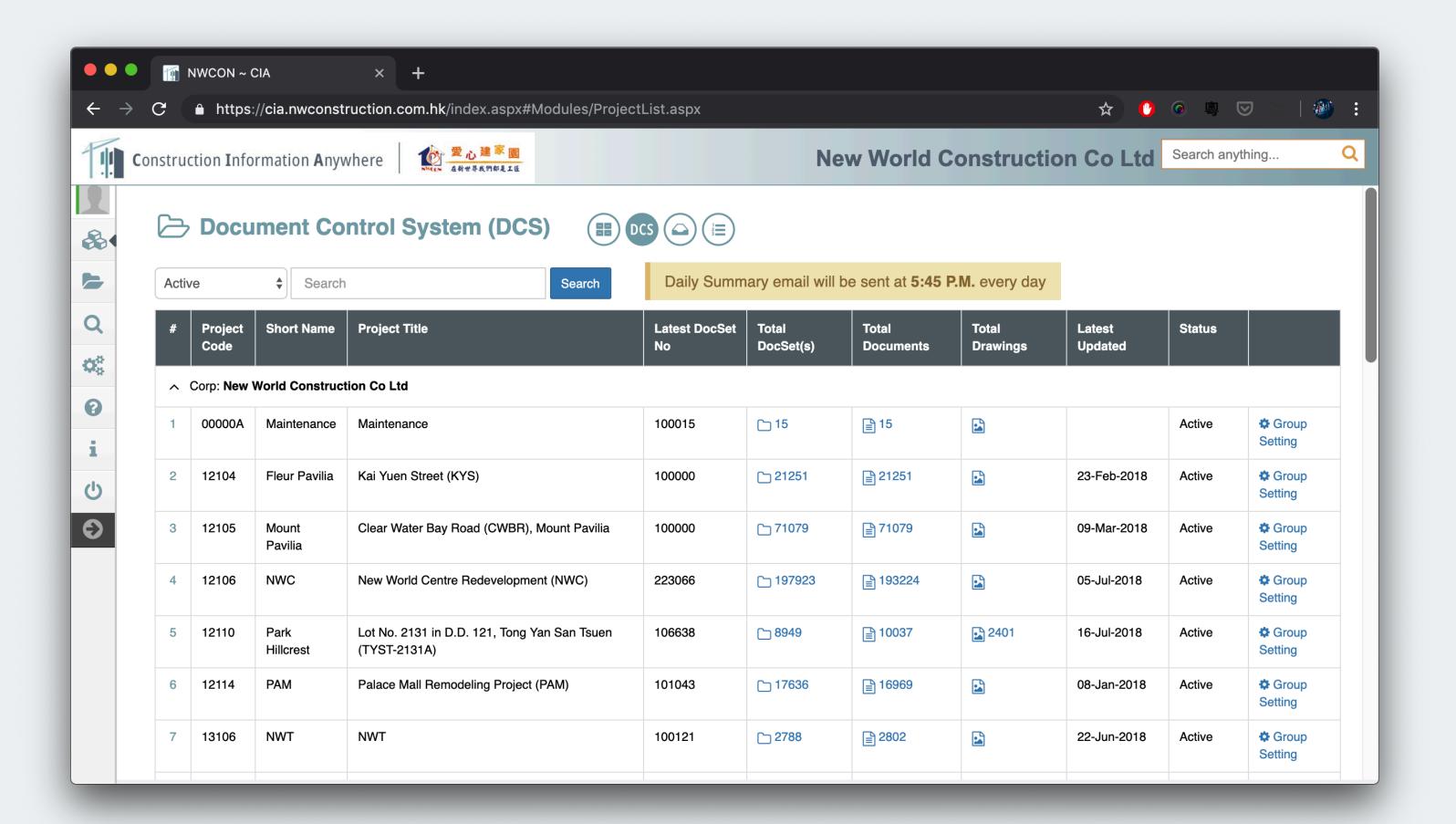
Store project information such as Progress Report,
BD Approved Plans, Coordinated/Construction/Shop
Drawings, VVMU, 3D Model, Walkthrough Video,
360 Site Photo and more.



DCS - Document Control System



Centralized database for project information storage and be shared among all project stakeholders with dedicated levels of security control.



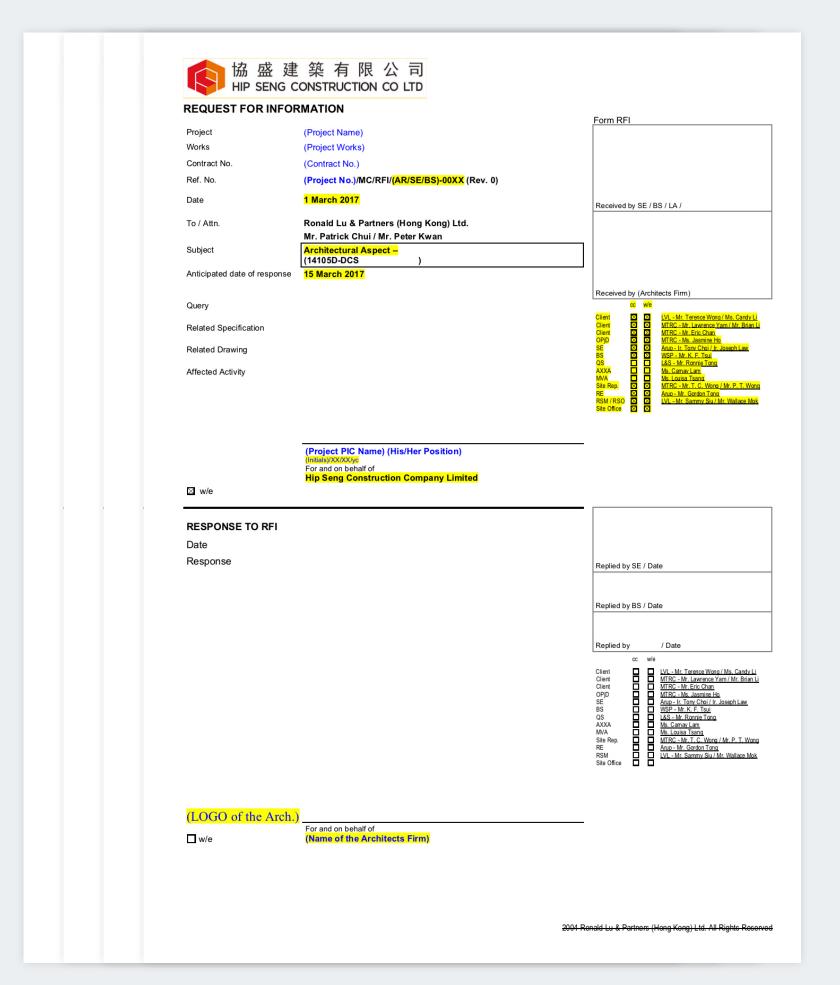




Workflows Digital Tranformation



Various Workflows (RFI, TSF, SSF, DT...etc) to allow users to submit, create, review, approve and reply with traceable history of each records. All documents generated from these workflows will be automatically registered and maintained under the DCS system.



Original Workflow Form





Workflows Digital Tranformation



Various Workflows (RFI, TSF, SSF, DT...etc) to allow users to submit, create, review, approve and reply with traceable history of each records. All documents generated from these workflows will be automatically registered and maintained under the DCS system.

Request For	Information (RFI)					
Project	14105 Tai Wai Station (TAW)	Status	Draft			
Contract No	14105B TAWMOL \$	Discipline	Architectu	ıral \$		
Works	MOL Viaduct Enclosure, New Plant Rooms and Modification of S-23 Nominated Sub-Contract Works	Zone				
Grid		Location				
To / Attn	Ronald Lu & Partners (Hong Kong) Ltd - Mr. Patrick Chui / Mr. Peter Kwan					
Subject			Client Client Client Client Client	CC W/E LVL - Mr. Terence Wong / Mr. Angus Yip / Ms. Candy Li LVL - Mr. Kenneth Fan / Mr. C. Y. Ho LVL - Mr. Gavin Tang / Mr. Sam Hung MTRC - Mr. Lawrence Yam / Ms. Sonia Choi MTRC - Mr. Brian Li / Mr. Eric Chan		
Description / Query			Client OPjD SE BS BS QS	MTRC - Mr. William Chan / Mr. Homond Leung MTRC - Ms. Jasmine Ho Arup - Ir. Tong Choi / Ir. Joseph Law WSP - Mr. K. F. Tsui (Podium) WSP - Mr. Eric Lo (Residential) Arcadis - Mr. Ronnie Tong		
Related Specification			LA Site Rep. COW RE RBSE	Site Rep. MTRC - Mr. T. C. Wong / Mr. P. T. Wong COW LVL - Mr. Stanley Ng RE Arup - Mr. Tony Khoo RBSE WSP - Mr. T. H. Wong / Mr. K. P. Ng / Mr. Eric Chau Chau		
Drawing Reference			RSM / RSO ID BEAM Plus Site Office	DISCRIPTION OF THE PROPERTY OF		
Affected Activity						
Purpose						
Reviewer			‡			
Approver			\$			

協盛建築有限公司 HIP SENG CONSTRUCTION CO LTD SHOP DRAWING SUBMISSION FORM 14105D TAWMC - Proposed Property Development on S.T.T.L Form RLP/SSF No. 520. Tai Wai Station. Tai Wai, Shatin, N.T. Sub-Structure and Superstructure Main Contract Works 14105D TAWMC Contract No. 14164NT/MC/SSF/AR-0172 (Rev. 0) Ref. No. 15 April 2019 Ronald Lu & Partners (Hong Kong) Ltd Received by SE / BS / LA / Mr. Patrick Chui / Mr. Peter Kwan Architectural Aspect - Shop Drawing Submission of Typical Water Proofing Detail to Movement Joint System Type 7 at Podium 14105D-DCS122944 Anticipated date of response 29 April 2019 Received by RLP We certify that the submission has been checked and is in full compliance with the Specification & Contract Documents. [X][] LVL - Mr. Terence Wong / Mr. Angus Yip / Ms. Candy L | | | | VL - Mr. Kenneth Fan / Mr. C. Y. Ho | | | VL - Mr. Gavin Tang / Mr. Sam Hung | X|| | MTRC - Mr. Lawrence Yam / Ms. Sonia Choi | | | MTRC - Mr. William - Chan / Mr. Homond Leung | | | MTRC - Mr. Jasamine Ho | X|| | Arup - Ir Tong Choi / Ir. Joseph Law | | | WSP - Mr. K. F. Tsui (Podium) | | | | WSP - Mr. K. E. Tsui (Podium) | | | | WSP - Mr. Eric Lo (Residentia) generated QR Code for the record of signature by the undersigned of this document. Basic details of this document and the link to read the full [] [] Arcadis - Mr. Ronnie Tong [] [] AXXA - Ms. Camay Lam [X] [] MTRC - Mr. T. C. Wong / Mr. P. T. Wong Caesar Tong Ka Wai (Senior Project Manager)
 Site Rep.
 [X] | MIRK - Mr. I. C., Wong / Mr. P. I., Wong

 COW
 [X] | LVL - Mr. Stanley, Ng

 RE
 [X] | Arup - Mr. Tony, Khoo

 RBSE
 [] | WSP - Mr. T. H. Wong / Mr. K. P. Ng / Mr. Eric Chau

 RSM / RSO
 [] | LVL - Mr. Sammy, Siu / Mr. Wallace Mok / Mr. Eric Ng

 ID
 [] | BTR - Mr. Terence Or / Ms. Mandy, Cheng
 For and on behalf of **Hip Seng Construction Co Ltd** BEAM Plus [][] Arup (BEAM) - Mr. Ricky Li / Mr. Kelvin Chox Review Status / Comment water proofing detail of interfacing to movement WWY-TWS(MI)-SK002 water proofing detail at L6 and ball court at L6R Replied by SE / Date RESPONSE TO SHOP DRAWING SUBMISSION Ronald Lu & Partners (Hong Kong) Ltd Any comments or amendments required shall not be deemed to be variation or resubmission, the Contractor has to highlight or cloud those revision areas in the shop drawing for review Legend: A (No objection) C (Amendment & resubmission required) B (No objection, subject to comments as noted) D (Rejected & resubmission required) 2004 Ronald Lu & Partners (Hong Kong) Ltd. All Rights Reserved

Transformed Digitalized Workflow eForm





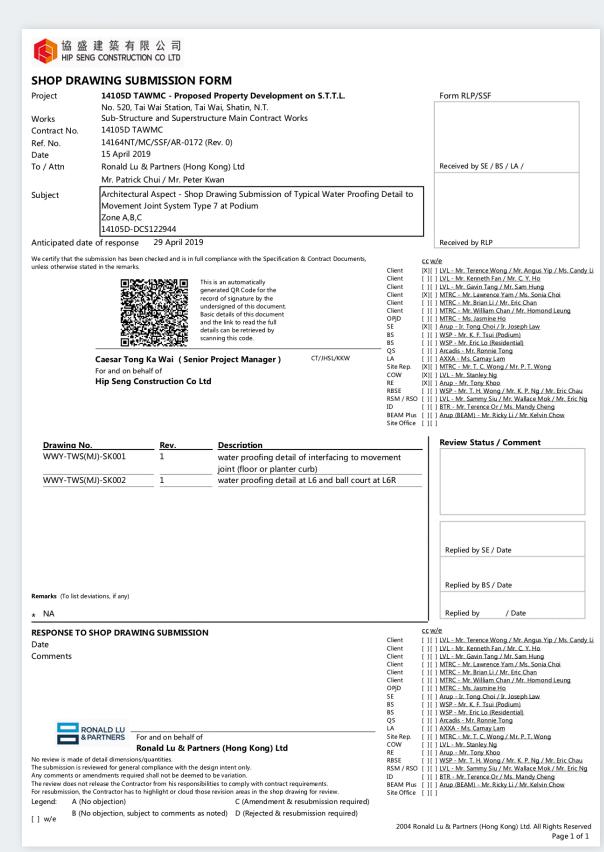
eSignature



CIA e-Signature is a QR Code on the PDF, allow user to scan the QR Code to visit e-Signature Verification.

The CIA e-Signature Verification shows:

- 1. The submission form is generated by CIA and official approval / reply by CIA User
- 2. Document No. and Approved / Replied Date
- 3. Link to submission form to view more detail

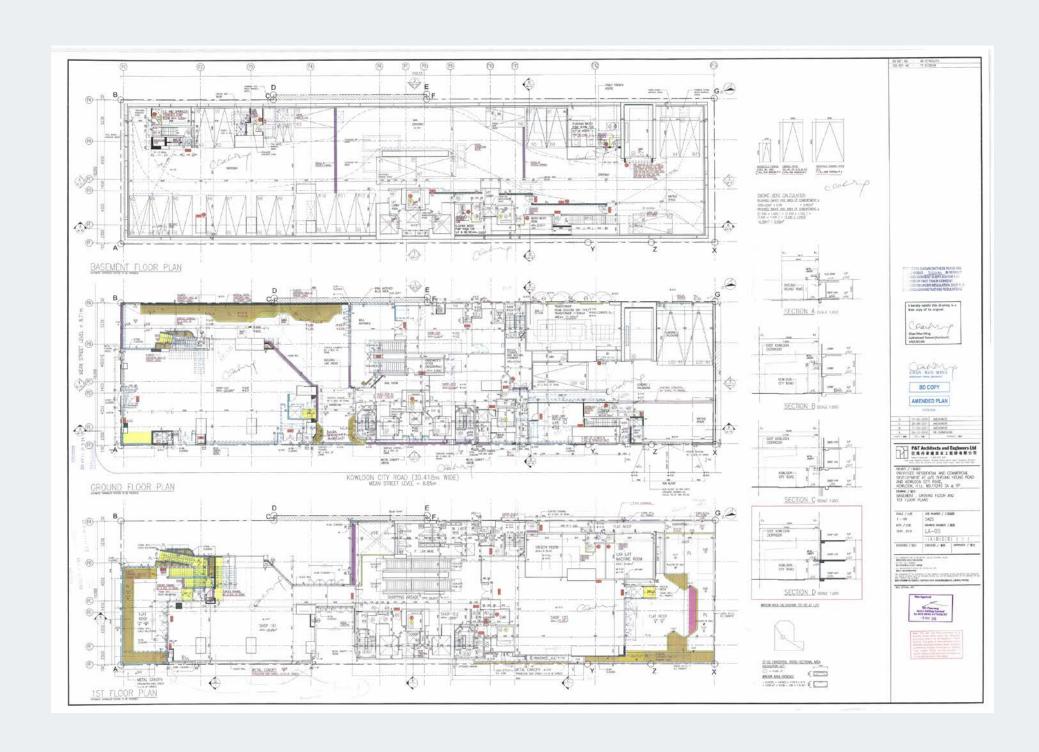




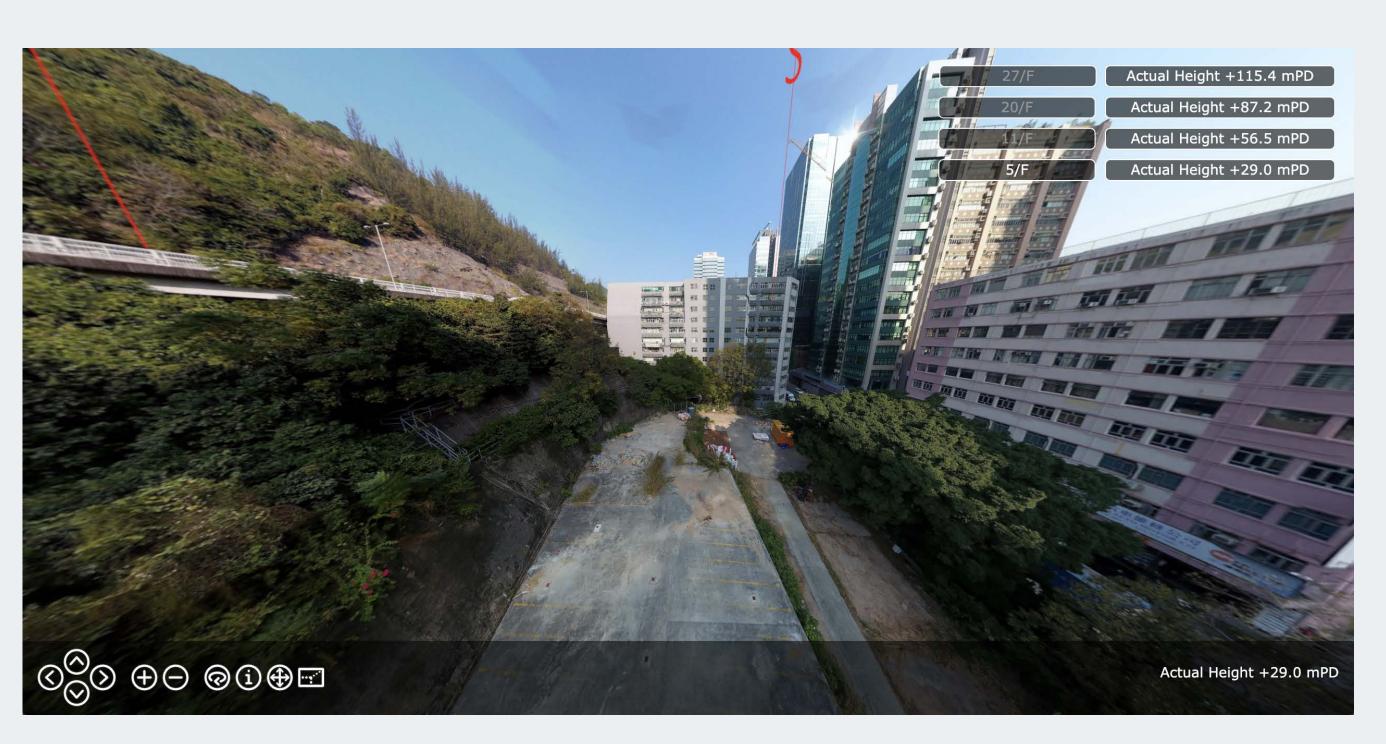


Design Drawings & 360 Site Context Photos





Most updated 2D drawings
Ensure all users communicate with same and latest
Information to enhance the work efficient and accuracy.



360 Site Photo



Construction Planning & Walkthrough Video

Walkthrough is the good way for fast track review the overall contents of the building design to help the project team to identify the conflict, make judgement and design change consideration

Construction Planning (Sheung Heung Road)

Walkthrough Video (Kings Road)











VVMU



Virtual Visual Mock-up (VVMU) is used for preview and pre-rectification original design before actual construction to minimise the design change and cost implication.









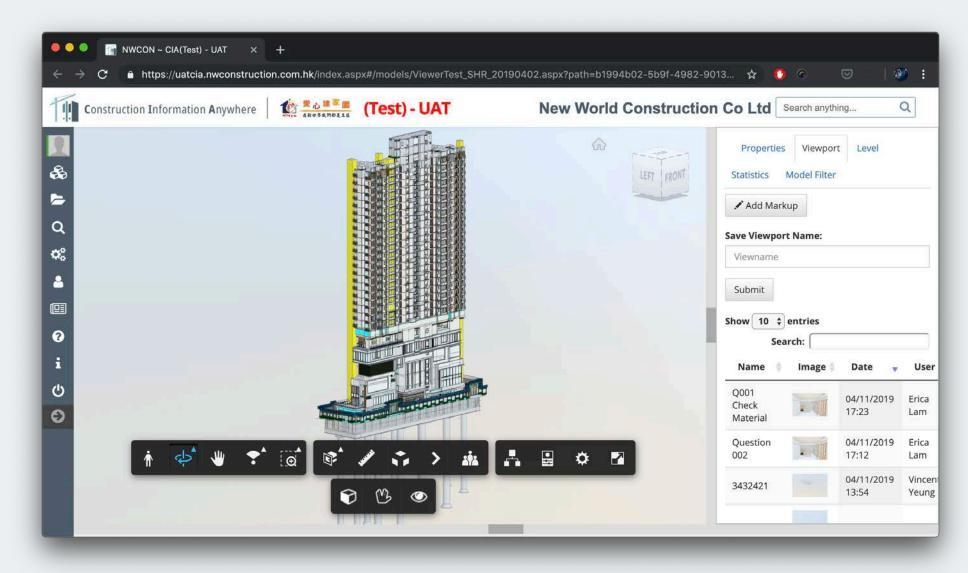
Design Information - GIA

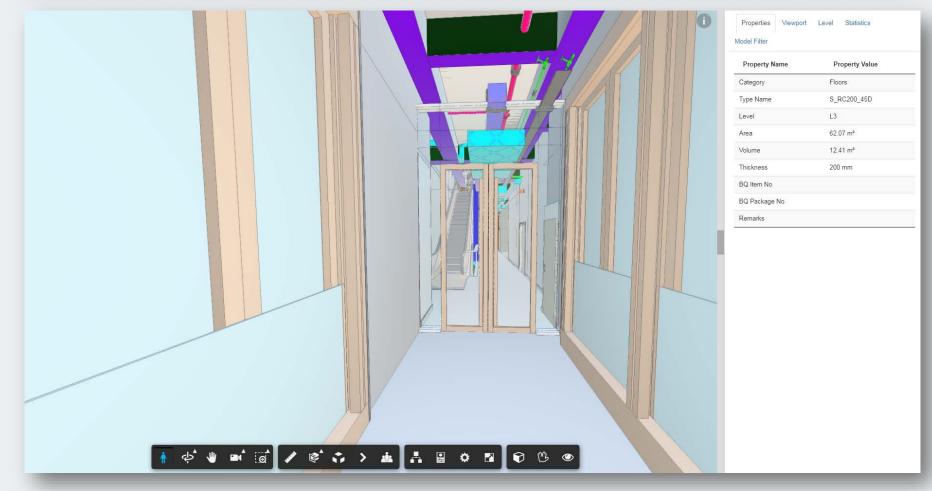


Geometry Information Access (GIA) is a webbased interface in which users can get access to information of the building/infrastructure with a few strokes.

Currently users can get access to information such as the views of the building (overview, floor views and section views) and numeric information such as quantity take offs and measurements.

With its viewport markups and live review functions, GIA provides users a platform to facilitate collaboration meetings and reviews.

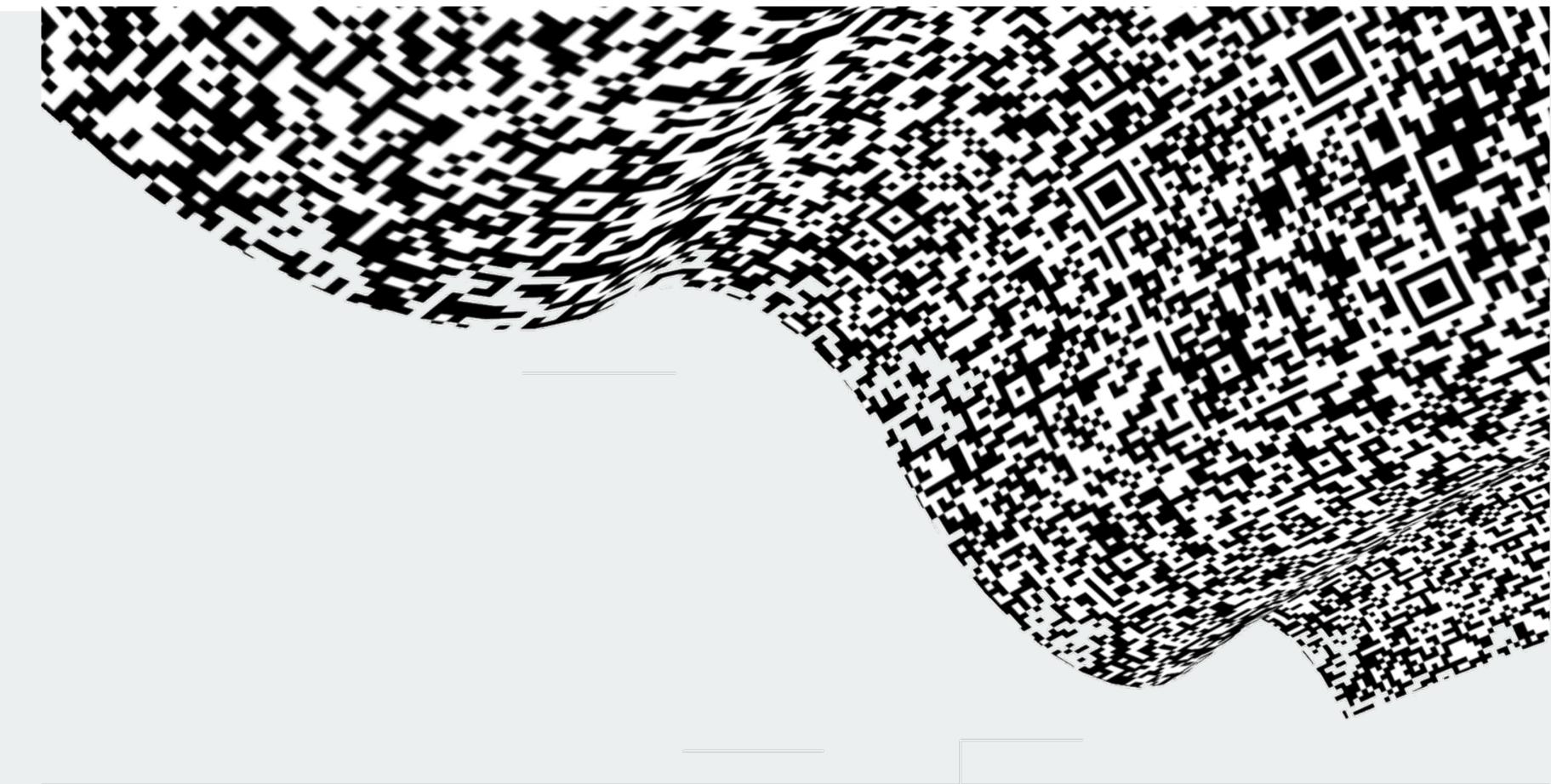












Thanks!

