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Development of construction costs database: A review of QSRBN's initiative

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making the **difference**

Brief profile

9 years + experience in the industry

Senior Cost Manager, Turner & Townsend

Chairman, Young Quantity Surveyors Forum (YQSF)

Handled over $500 million dollars worth projects ranging from data centers, healthcare, commercial, housing, infrastructures, etc.

Specialist in Cost Management of Mechanical & Electrical Installations

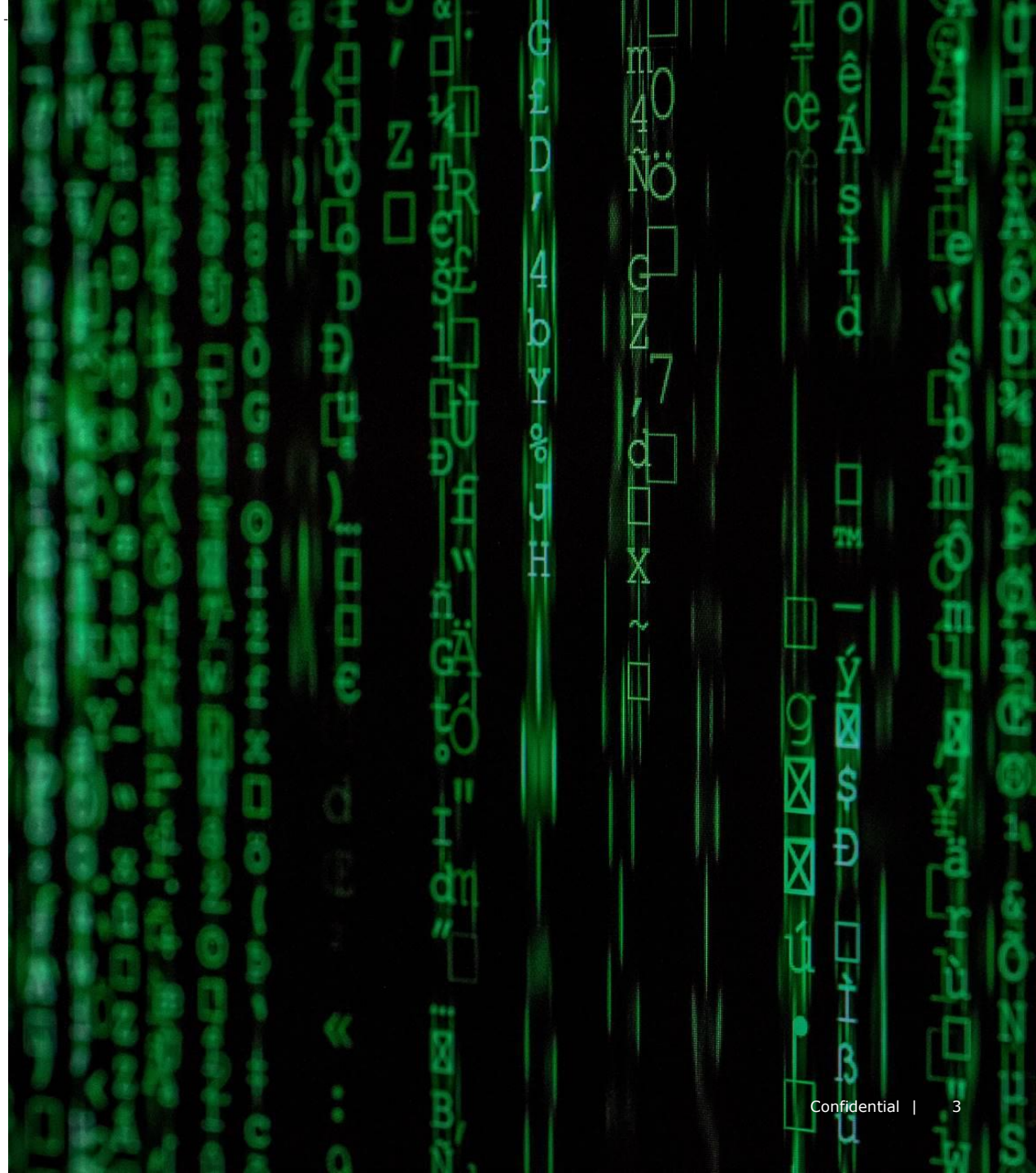
Stanley Orji

Senior Cost Manager

What is cost database?

The cost database is a centralized computerized repository of historical cost information or current costs of construction which will aid users in the production of benchmark estimates, derivation of building rates, and the analysis and benchmarking of construction costs.

The cost database is expected to be structured around a progressive breakdown structure like the Uniformat or International Construction Measurement Standards (ICMS) numbering systems.



Brief history on the conception of the Nigeria Construction Database

Several discussions regarding the creation of a construction cost database in the past

Known conception of the Nigerian construction cost database started as far back as 2015 at NIQS BEGM. (NIQS wanted FG to establish a cost data bank, and appropriate standards – Guardian Newspaper of 30th November 2015)

During 2017 national project cost reduction summit (Abuja), QSRBN called for establishment of a national construction cost database. Idea was swiftly adopted by then Minister of Power, Works, and Housing (Mr. Babatunde Raji Fashola) - believed this would nip corruption in the form of deliberate inflation of project costs to satisfy pecuniary interests

QSRBN, to fulfil mandate by Ministry of Power, Work, and Housing formed a joint ad hoc committee in April 2019 on the development of a framework for the national construction cost database

Why create a National construction cost database

Inconsistent Construction Cost:

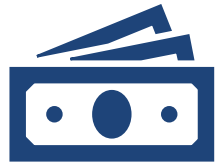
- Nigeria's pricing structure is quite inconsistent and might be challenging to compare to other markets. The type of contractor and the project's perceived scope determine the preliminaries, material, labor, profit, and overhead costs

Hyper Inflation:

- The Construction Industry is very volatile and unstable in terms of movement of construction cost and this trends need to be monitored on a daily basis

Lack of Construction Cost References:

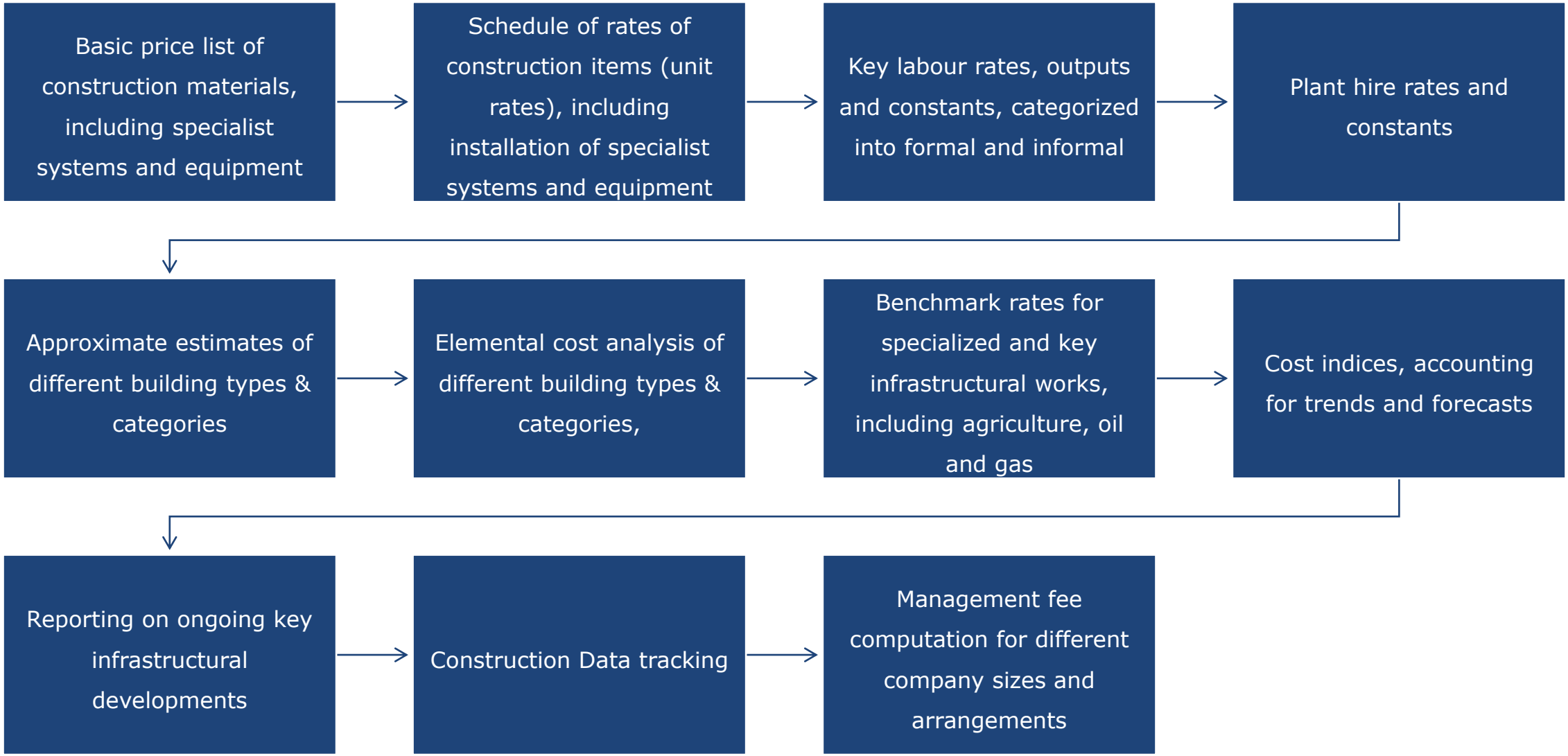
- Informal construction sectors and players are predominant in Nigeria. This usually brought to question the sources of cost information used on a project



Source of Historic Cost Data:

- Many important project details are lying dormant in our archive. We have to create a process for harnessing this important project information into a centralized cost database

Key functions/ services of the database



Getting constant and reliable cost data feed into the database

Partnering with Firms and Government parastatals to get project information/archival data

Partnering with manufacturer or distributors of significant construction materials

Constant Market Survey and Testing for Benchmarking of Rates

Partnering with Construction companies to get current build up rates

Challenges establishing a cost database

Lack of Transparency in the budgeting and award process: The budgeting process is usually marred with padding processes and some awarding process do not follow due processes. This makes the reliability of the project information as a benchmark for future projects very difficult

Confidentiality / Non-Disclosure Agreement: Several organization do not approve for project information to be made public. There are strict contractual document signed which will prevent the disclosure of the information that could be uploaded on the construction cost database

Trade Secrets: Most organizations prefers to hoard information so as to give them some leverages and competitive advantages over their competitors

Constant Price Variances: Sometime before cost data gotten through market research could be process and benchmarked for uploading on the cost database, it might no longer be valid as market prices changes by the minute in Nigeria and cannot be predicted nor constant across the market

Non-Adoption of Technology: Some organization still practices paper based system. This makes many important cost information which could be uploaded to the cost database to be lying fallow on their archives

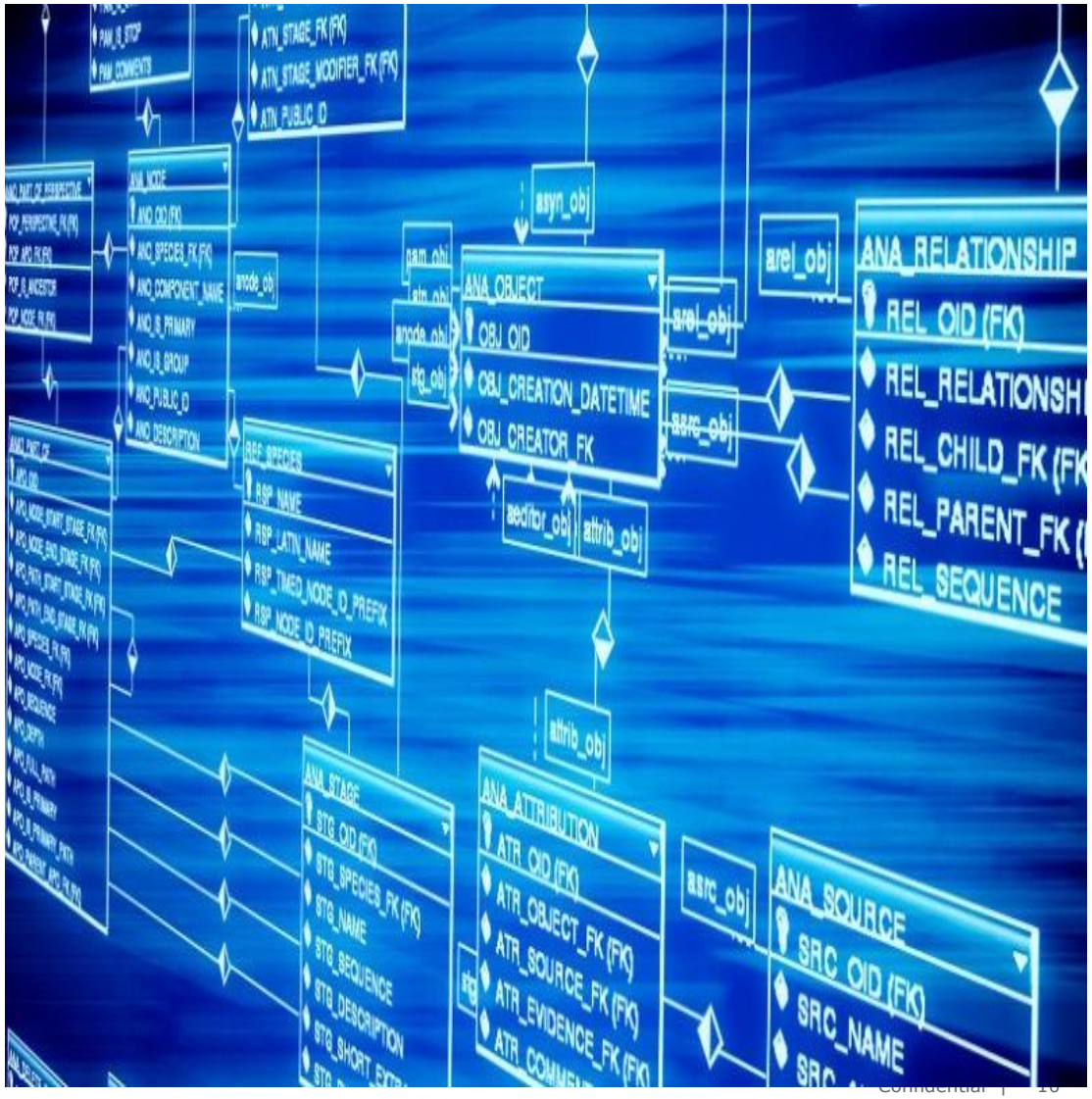
Mitigation to identified challenges

Challenges	Mitigation Process
Lack of Transparency in the budgeting and Award Process:	Adopting a framework whereby project budgets are prepared based on data obtained from accurate information and award processes follows a transparent process.
Confidentiality / Non-Disclosure Agreement:	This problem might be fixed with some tweak to the data, like altering the location of some project or eliminating some project details without affecting the real cost information.
Trade Secrets:	Establishing strict policies and procedures for accessing, utilizing, security, and compliance with the cost database platform should be adopted.
Constant Price Variances:	Creating a structured and automated data flow mechanism, ensuring real-time updates and seamless integration could be adopted.
Non-Adoption of Technology:	Creating and implementing a cloud-based system whereby people could access and upload their paper-based documentation, and this could be processed into useful cost information.

Benefits of construction cost database

- **Real-Time Data Analytics**: Enable prompt and informed decision-making with up-to-the-minute data analytics
- **Enhanced Cost Predictability:** Mitigate the impact of price fluctuations through predictive modeling and historical trend analysis.
- **Optimized Resource Allocation:** Efficiently allocate resources based on data-driven insights, reducing costs and enhancing project efficiency.
- **Collaborative Industry Advancement:** Foster collaboration among academia, private and public sectors for a collective push towards industry advancement.
- **Source of Revenue to the Institute:** In June 2022, RICS generated about 14.9m pounds (i.e. over 15bn NGN) through sales of BCIS limited to a third party. This is to show the huge potential sources of income the institute could adopt.

- Most of the information on this page aside the revenue was culled from the YQSF Lagos WhatsApp page based on contribution from QS Habeeblah Yekini



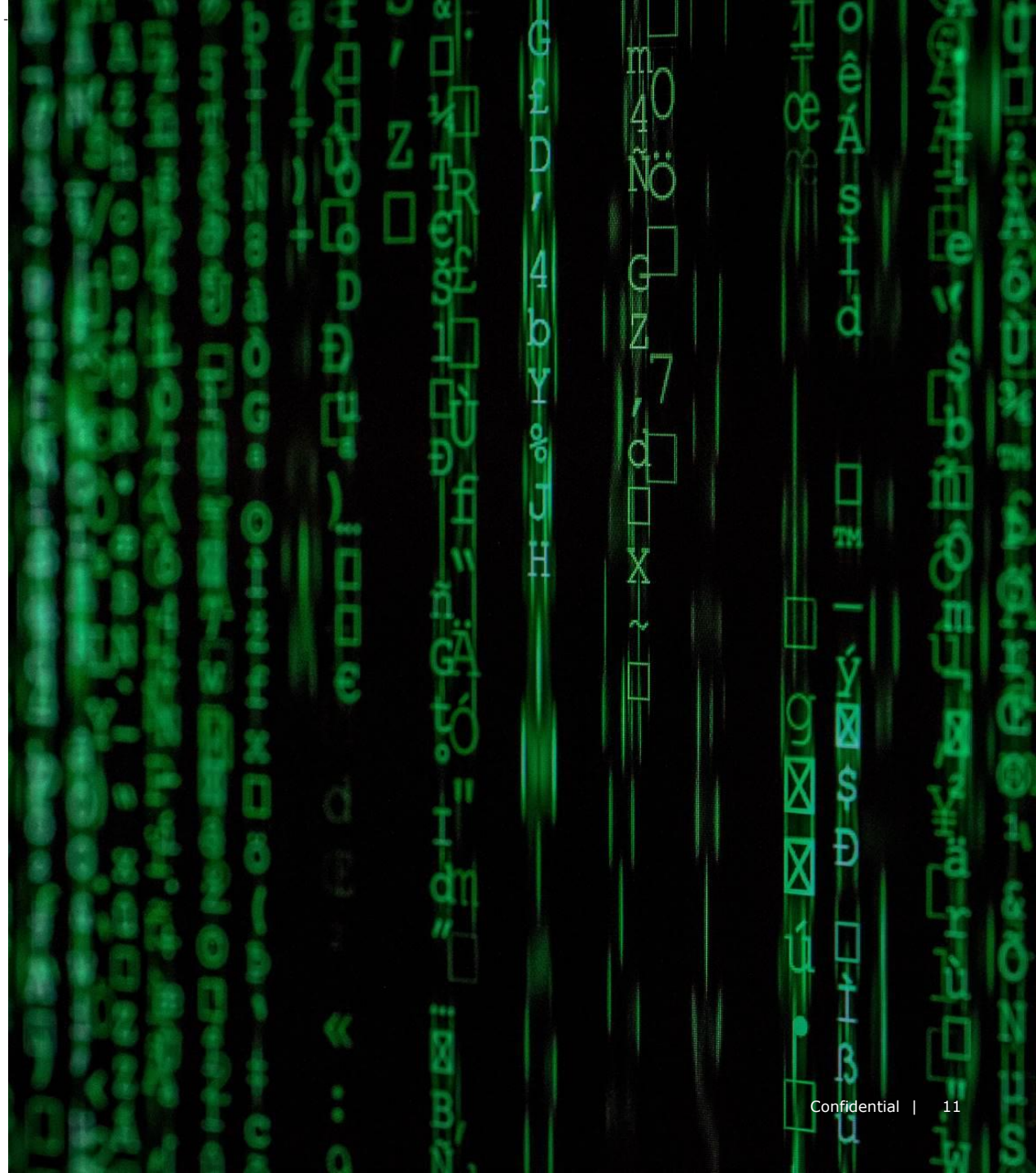
Practical example – cost database in an organization

Turner & Townsend model

- **International Construction Market Survey (ICMS) -** https://publications.turnerandtownsend.com/international-construction-market-survey-2023/

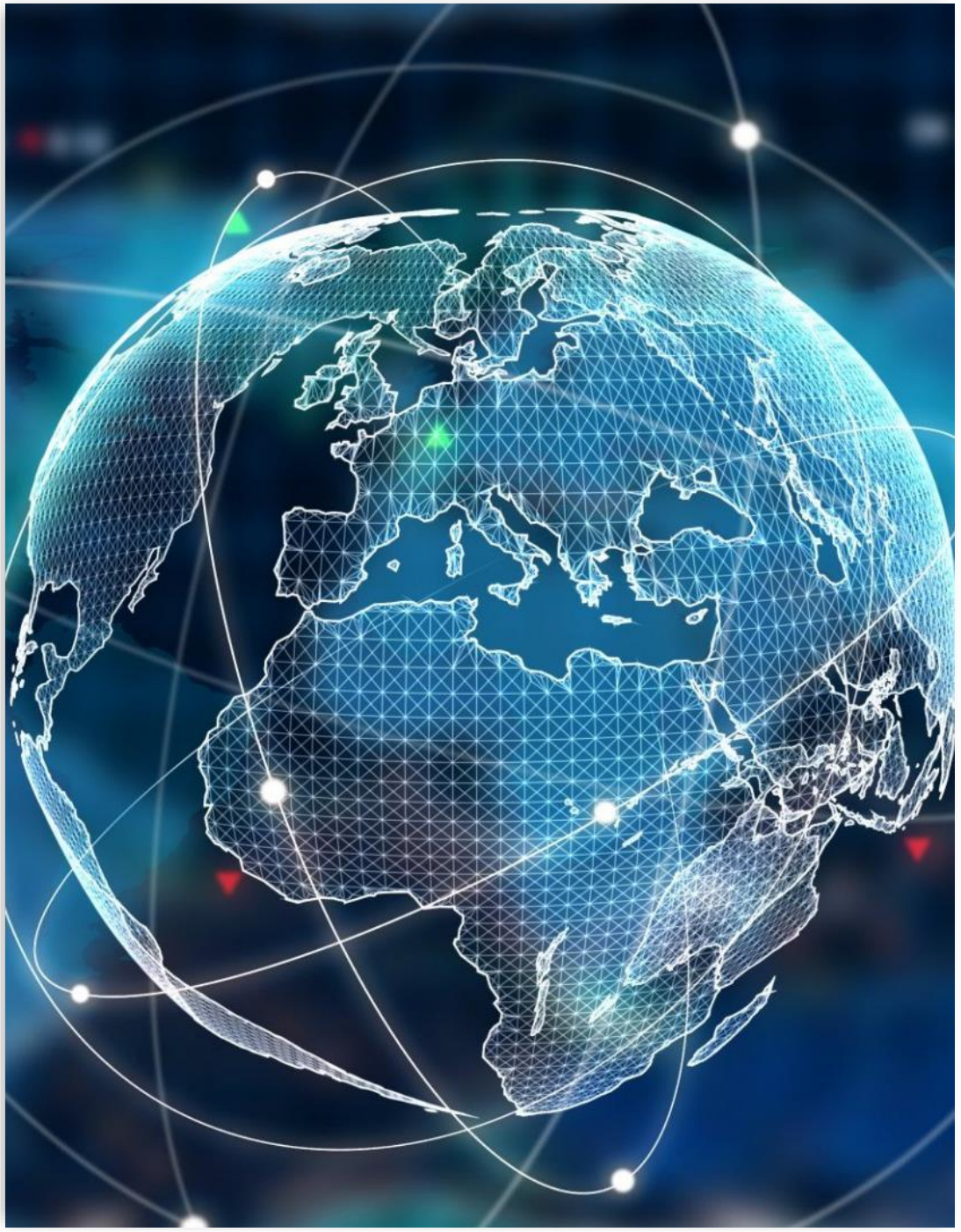
- **Data Centre Cost Index (DCCI) -** https://www.turnerandtownsend.com/en/perspectives/data-centre-cost-index-2023/

- Digital and cost management interactive map



Other Similar Existing Systems Globally

- **BCIS from RICS:** (https: www.rics.org/ (https://www.youtube.com/watch?v=vn9yIBXw1ak)
- **Cost data Online by Richardson for American market information** (Cost Data Online)
- **BCISM developed by CIDB Malaysia** (https://www.bcism.org.my/)
- **CEDD and BCIS data for Hongkong** (BCIS Online (Building Cost Information Service Online) | Pao Yue-kong Library, The Hong Kong Polytechnic University (polyu.edu.hk), Construction Cost Indices (cedd.gov.hk)
- **BER (Bureau for Economic Research) for South Africa market information** (Home (ber.ac.za)
- **CEIC in Ghana** (https://www.ceicdata.com/en/ghana/prime-building-cost-index)



Concluding the Memorandum of Understanding (MOU) between the NIQS and QSRBN for sustainable collaboration

The Institute must be ready to fund the process for the development of construction cost database

Create an enabling environment where individuals, firms, manufacturers, and construction companies could trade their cost data.

We can increase our revenue and enhance the quality of our services by implementing a construction cost database.

Thank you

Q&A