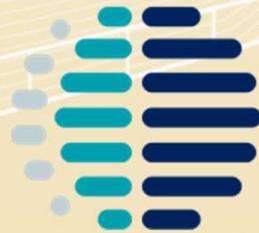




# Track Your Build Africa Top 10 Presentation



InfraChallenge

## Problem

Infrastructure is the primary driver for development and prosperity.

Public health, education, sustainable city development, and economic growth are determined by the availability of quality energy, transport, water, waste, and ICT infrastructure.

If many African countries need investments in quality infrastructure but this is hampered gaps in contract and finance standardization, lack of data on projects and several other issues.

**Africa Requires**

**\$6trn**

**Up to the year 2040**

The *Global Infrastructure Outlook* prepared by the Global Infrastructure Hub estimates a current trends scenario projection of \$174bn per year or, if African economies were able to raise their performance to match that of their best performing peers, a total investment need of \$6trn up to year 2040, or \$240bn per year – a difference of almost 40%.

**Source:** “Infrastructure Financing Trends 2016” by the Infrastructure Consortium for Africa. Page 13



## Solution

Track Your Build is Africa's first remote construction monitoring service, and project management cloud that integrates drone and satellite data for progress monitoring and analysis.

Our solution uses remote sensing and cloud computing to bridge the data gap, engage community stakeholders, verify the achievement of output specifications, track demographic and economic indicators in relation to infra assets, and provide a resource share point for capacity building, PPP development, and localization of project contracting.

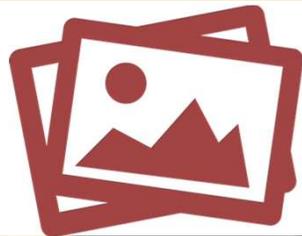
Our approach seeks to disrupt a data-scarcity, sector fragmentation, under-representation of local professionals, and a lack of participation of private sector in infrastructure projects in Africa.



## How it works

Our platform offers a suite of tools for task management, collaboration, project contracting, reporting, and document management.

The status of as-built assets against output specifications is verified via drone survey and analytics and community members where assets are being built can use the TYB Community app to provide community feedback on a project.



## Applications: Quality Infrastructure

Quality infrastructure is “*an infrastructure investment which is done with economic efficiency in view of life-cycle cost, safety, resilience against natural disaster, job creation, capacity building, and transfer of expertise and know-how on mutually agreed terms and conditions, while addressing social and environmental impacts and aligning with economic and development strategies*”. from “**Output Specifications for Quality Infrastructure Sept 2019**” by Mott Macdonald for GI Hub.

Track Your Build’s cloud provides a secure environment for public sector and PPP collaboration in developing and maintaining infra assets across their life-cycle. **Our remote-sensing modules have been used to assess critical infrastructure after floods and mudslides; the professional users and jobs board enables local job creation at all levels; we aim to close the data gap to ensure transparency and that project implementation is aligned with desired impact outcomes and development strategies.**



## Applications: Infrastructure as an Asset

Infrastructure as an Asset Class is the structuring of infra projects and assets as long term investment instruments. This is attractive for long-term institutional investors and will help the infrastructure sector close its finance gap. One of the hinderances to large-scale infra investment, is lack of data, and Track Your Build's cloud and data collection offerings can bridge the data gap.

**Bridging the data gap** *“The availability of clear and timely data ensures that investors can assess the key features of infrastructure projects, in particular their expected risk-return profile. However, governments and markets lack comprehensive, asset-level, detailed and systematized data to make adequate and informed assessments. In order to address this deficiency, further work should be devoted toward developing data on long-term performance of infrastructure at the asset and project level, together with the design of a standardized template for data collection”.* From *“Roadmap to Infrastructure as an Asset Class”* by OECD for GI Hub.



## Applications: Public Private Partnerships

Public Private Partnerships in infra project development, financing, implementation, and asset management is growing in Emerging Markets and Developing Economies.

However a lot of potential projects can't secure PPP commitments due to a lack of clear data on the asset.

Track Your Build will close the data gap for private sector stakeholders therefore increasing investment confidence and commitments.

FIGURE 14

Sources of Financing for Infrastructure Projects with Private Participation in EMDEs in 2019\*



Source: "private-participation-infrastructure-annual-2019-report" by the World Bank PPP Group.

## Applications: Project Assurance

Project Assurance frameworks focus on projecting, identifying, mitigating and managing risks associated with a project. There are several industry standards for project assurance and one of the most widely used or referenced is the UK's "HM Treasury Assurance framework". Within this standard the main methodologies for Project Assurance are Assurance Mapping, Regular Reporting, and External Project Audits.

Track Your Build provides the tools for mapping project output specifications, reporting on the status of implementation of the outputs and indicating the risks of failure of successfully meeting the output specifications. Risk reports can also be stored and shared on the platform for multiple stakeholder oversight. In addition to this, community level data to inform risks can be collected via the TYB community app.



## Feasibility

Since December 2017, Track Your Build has been offering various urban data collection and management services including infrastructure mapping and analytics.

The company has proven that there is private and public sector interest in improved data tools and products for developing new infrastructure or managing existing assets. Technical development has progressed significantly and there's scope to expand the platform.



Office of National Security  
Republic of Sierra Leone



UNOPS



INTERNATIONAL CONSULTING SERVICES  
Established in 1991

Crisis response and risk assessment of damaged to critical infrastructure for the Office of National Security Sierra Leone during the 2017, 2018, and 2019 landslide and flash flood incidents.

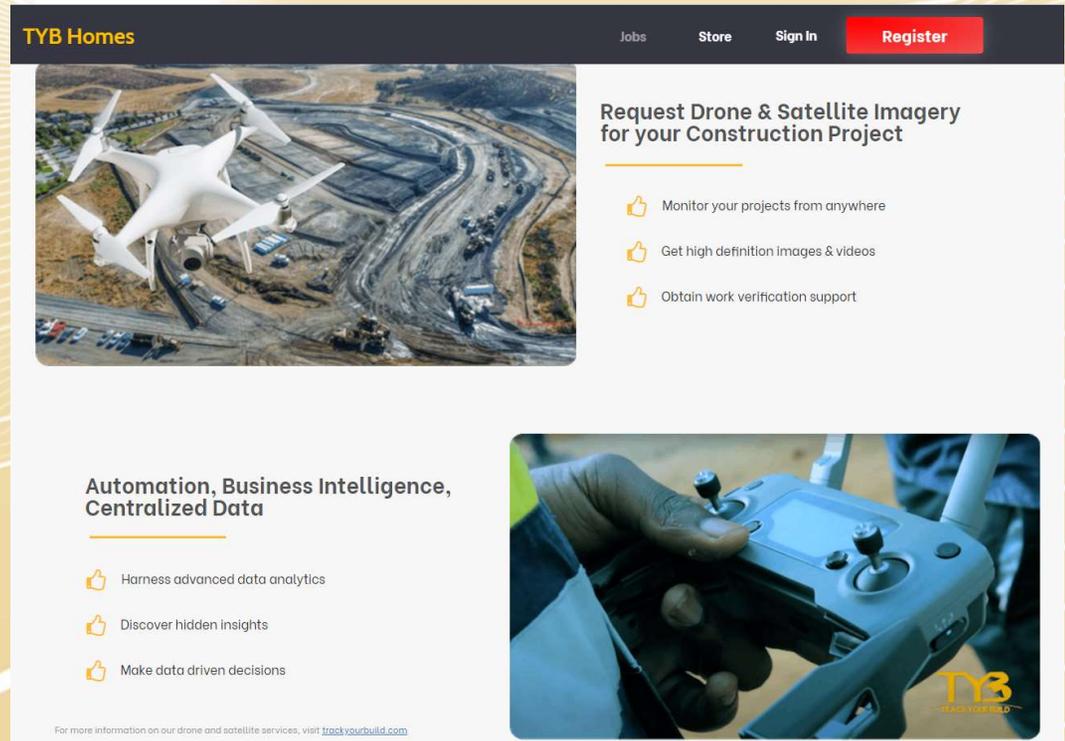
Road surveys for Iluka Mining Company.  
Road Survey in Liberia for ICS Engineering Consultants.  
Site mapping for UNOPS.



## Current Status

We currently have a version of the cloud online called “TYB Homes”, this platform provides the TYB digital experience for clients with residential construction requirements.

We are also continuing our infra mapping and analysis work using drones and GIS software packages to deliver reports, drawings, and other outputs to public and private sector clients.



The screenshot displays the TYB Homes website. The header includes the logo and navigation links for Jobs, Store, Sign In, and a red Register button. The main content area features a large image of a white drone flying over a construction site. To the right of the image is a section titled "Request Drone & Satellite Imagery for your Construction Project" with three bullet points: "Monitor your projects from anywhere", "Get high definition images & videos", and "Obtain work verification support". Below this is another section titled "Automation, Business Intelligence, Centralized Data" with three bullet points: "Harness advanced data analytics", "Discover hidden insights", and "Make data driven decisions". A small note at the bottom left of the screenshot says "For more information on our drone and satellite services, visit [trackyourbuild.com](http://trackyourbuild.com)". On the right side of the screenshot, there is a close-up image of a hand operating a drone controller with the TYB logo in the corner.



## TYB next iteration



### TYB Pro

The next evolution of the Track Your Build digital environment will be the development of the TYB Pro functionality and delivering

TYB Pro will be a desktop application. It will work similar to the Zoom app where it's a desktop client that establishes a secure link the online application server for fetching data and live interaction with other users. The TYB Pro app will have modules relevant to infra projects and feature an off-line data save function.



Community



## Use of Prize Funds

The AU\$50,000 InfraChallenge prize money will be spent on building the TYB Pro desktop app, TYB mobile app, and TYB Community app.

Objective	Cost	Unit	Amount
Backend development	\$ 10	900 Hrs	\$ 9,000
UI & UX development	\$ 8	540 Hrs	\$ 4,320
Web GIS functionalities	\$ 5	540 Hrs	\$ 2,700
A.i. algorithm training and development	\$ 15	300 Hrs	\$ 4,500
Alpha Testing	\$ 5	1,500 Hrs	\$ 7,500
Payment integration	\$ 5	250 Hrs	\$ 1,250
AWS Hosting	\$ 1,000	12 Mths	\$ 12,000
Contingency			\$ 8,254
			\$ 49,524



## Market Size

Although our offering appeals to all EMDE countries, we are going to focus on the African market. Track Your Build services and the TYB Pro App are targeted to the infra projects sector. The size of the infrastructure gap that Africa must close is known and on average the continent has secured 60% of its annual target of financial commitments. Similar infra project management software like Oracle's Aconex earn as much as 0.5% of project value per project.

Proj software market of

**\$15bn**

**From 2021 - 2040**

**Using these parameters; we project total secured financial commitments of \$3trn from 2021 to 2040 and if 0.5% of that is the market size then that means the market could be worth \$15Bn from 2021 to 2040.**





## Competitors

- ✓ Virtual Filing Cabinet
- ✓ Scheduling
- ✓ Quality & Safety
- ✓ Messaging & VOIP calls
- ✓ RFQs/RFPs
- ✓ Drone, satellite and a.i. workflows for verification of output specifications
- ✓ Dashboard & Reporting
- ✓ Project media (images, video, and sound.)
- ✓ Professional network (user profiles, pages, online courses, and jobs board)
- ✓ Community feedback

*Subscription or  
Request for Quote*



- ✓ Document Management
- ✓ BIM Collaboration
- ✓ Mail & Forms
- ✓ Bidding & Tenders
- ✓ Workflows
- ✓ Packages & Deliverables
- ✓ Interface Management
- ✓ Field Inspection & Checklists
- ✓ Quality & Safety
- ✓ Handover / O&M Manuals
- ✓ Dashboard & Reporting
- ✓ Construction Software

*Request for Quote*



- ✓ Daily Reports
- ✓ RFIs
- ✓ Change Orders
- ✓ Submittals/Transmittals
- ✓ Purchase Orders
- ✓ Pay Applications
- ✓ Project Summary
- ✓ Meeting Minutes/Punch Lists
- ✓ Correspondence
- ✓ Virtual Filing Cabinet

*Request for Quote*



# Commercialization

We aim to bring the platform to market by targeting specific Governments, donors, multilateral finance agencies, and private sector infrastructure investors. Geographically, we have countries where we want to roll out first; see below.

## Target Clients



## Target Countries



## Impact Metrics for G.I. Hub

**We will measure our success by comparative analysis of outcomes of certain metrics. Specifically performance of the following year-on-year;**

- 1. Measure the number of projects developed in TYB Pro which result in assets successfully classified as “Quality” infrastructure.**
- 2. Qualitative survey of institutional investors with projects in TYB Pro, to measure if the impact made on investor confidence and attractiveness of infrastructure as an asset class.**
- 3. Track the performance of PPP projects which utilize the TYB Pro platform and measure whether the platform is a force-multiplier for creating more PPP projects.**
- 4. Measure project assurance effectiveness in projects using TYB Pro vs projects which did not.**

