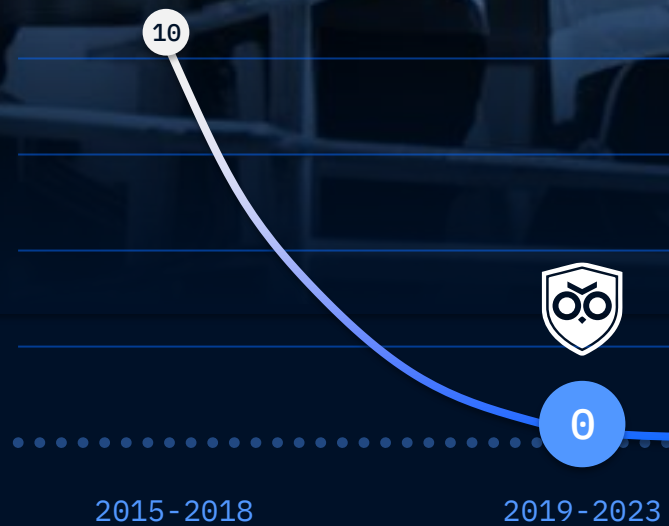


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A Construction Safety Case Study

Yaron Goldman,
General Manager, Otoos



Introduction



Before sharing Client A's story, one should note the context in which this client has been operating. Between the years 2016-2018, 30 fatal accidents occurred on construction sites in the country with a constant growth year after year.

Client A is one of the five leading construction groups in the country, which operates in both the public and the private sectors.

Client A is engaged in the development, planning and construction of high-profile projects. It has a diverse portfolio of projects that include residential, industrial and national infrastructure projects.

The Client is a reputable publicly traded company, which employs thousands of skilled professionals.

“

How safe are you?”

asks Yaron Goldman, General Manager of Otoos.

“Being aware of your safety state has a profound impact on the lives of workers and your profit line.

”

Challenges of Client A in the “Pre-Otoos” Era

The years 2017 and 2018 were particularly challenging for Client A. The number of fatal and severe accidents that occurred on or about its various sites was on the rise, a trend that pervaded the entire scope of the company's portfolio.

During 2018 this reality started to tarnish the Client's reputation, creating an increasing gap between what had been perceived as a reputable construction company and the realities presented *by a series of highly publicized accidents and fatalities on its sites.*



Various stakeholders, including investors, customers, regulators, non- governmental organizations, and the general public started to protest this reality.



Frequent inspections were conducted by the regulator's enforcement task forces. Throughout the Client's portfolio and various construction sites.



These events had an adverse effect on the client's ongoing performance, resulting in delayed performance of various projects and a chilling effect on the share price.

In retrospect, following our introduction to the Client and an in-depth learning process, we realized that the Client had been ill equipped to monitor the situation or come up with the necessary corrective measures. This situation exemplified itself by the lack of a comprehensive safety plan, the absence of structured manuals or oversight processes and the non-existence of an overall strategy that would have enabled the orderly monitoring and handling of crisis situations of this nature.

Our further retrospective in-depth analysis of Client A led us to the conclusion that all safety-related reporting and monitoring were conducted by manual non-digitized means, without the Client having an overall, centralized, “real time” understanding of the exigent circumstances created by on-site accident, let alone the skills and routines necessary in order to control and handle them.

How Otoos Has Helped

STEP Mapping the safety culture of the organization and the level of digitization.

1

The lack of digitization was one of the problem areas faced by the Client. In the case of Client A, the lack of digitization was attributable to the lack of prioritization of safety-related tasks and missions, which was yet another result of the far from satisfactory organizational culture that was then in place. The digital transformation is always secondary to the cultural transformation, a transformation into a culture of learning, obeying, and implementing safety related measures and standards.

STEP Data collection via user-friendly mobile apps which are then integrated into the safety management platform to allow safety and incident management.

2

Based on the group structure, we have defined five control circles. Every control circle is identified by its role, responsibility, required reporting/ regulatory requirements, relevant alerts, and necessary reports.

We then moved onto the digitization process and the optimization of data collection. In accordance with regulations, corporate policies and the five control circles. The data collection was focused on three different aspects of the operation i.e., human resources, equipment readiness/daily checkups and safety management, which helps create a 'holistic' safety perspective.

STEP Integration of sensors to our flexible and adaptive platforms to allow dynamic and real time preventive measures.

3

Smart gates
Access Control.



Smart Cameras
(AI & Machine Learning)



IoT (internet of things)
antennas, red zones beacon, wearables.

How Otoos Has Helped

STEP 4 Data integration and analytics to generate a real time decision support and reporting system at a required level from a single site to the whole portfolio.



Planning information hierarchy



Business intelligence (BI)



CIP
(Continuous Improvement Process)

All of these steps taken together helped our client to achieve:

protection

prevention

better performance

outstanding reputation

The Results

There have been no fatal accidents since the system was implemented until 2022 and the Client has seen a moderate but stable trend of improved control at the safety-management level. Client A also saw a major increase in business performance, as listed below.

Compliance



0% exposure to regulation requirements



Platform generic capabilities enable it to adapt to any change in regulation that evolved over time



100% paperless



Minimal fines or holds on job sites by regulator

Productivity

No more speculations, finger pointing or assumptions. Real-time, data-driven management and decision-making practices lead to a better, more effective and less time-consuming process, thus resulting in cost saving.

Productivity - From Leading in Safety Management to Construction-Tech Innovation.

Smart sites - long term co-development project with Otoos



Daily work log



Control over subcontracted work



Weekly plan vs execution



Quality control



Process management



Budget control

The Results

Business Continuity



Client A is able to return to work faster when the process is effectively managed.

Insurance



Entering to contract negotiation process.



Lowering premiums.

Client A's Reputation

The process has yielded a significant ripple effect that started inside the organization and its vendors has gradually expanded to the community and the Client's business partners and has become a nationwide standard for safety management and innovation.

*Organization
+ vendors*

*Community
+ partners*

*Nationwide
standard*

Summary

“There are many definitions for successful construction projects,”

said Client A’s CEO.

“Everyone agrees that finishing a project on time without incidents while maintaining our reputation in the process are key success factors. A single fatal accident is almost the only single event which could affect all of the success factors. This is why safety should come first. We want to thank Otoos for leading us in this transformational change. We are not safer, smarter and conscious and we understand that is an ongoing continuous process.”



In the last six years, 100 such partners and over 2,750 projects have trusted us with what they value most, their reputation. Thanks to Otoos’s solution, the construction sector is safer, smarter and better.



6

Years



100

Partners



2,750 +

Projects

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Thank You!



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