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# FutureTech

CONSTRUCTION'S  
LEADING  
TECHNOLOGY  
FORUM

**JUNE** HYATT  
**3-5** REGENCY  
**2019** SAN FRANCISCO



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**FutureTech**  
Where Construction Technology Innovators Meet

# PILOTING STARSHIP ENTERPRISE

Moderator: Steve Jones | Senior Director | *Dodge Data & Analytics*

**Thomas Donoghue** | Venture Manager | *Bechtel*

**Zack Parnell** | President & CEO | *ITI*

**Zachi Flatto** | CEO | *Contech*

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INNOVATION IS  
**REAL**

Twitter: [@Bechtel](https://twitter.com/Bechtel)

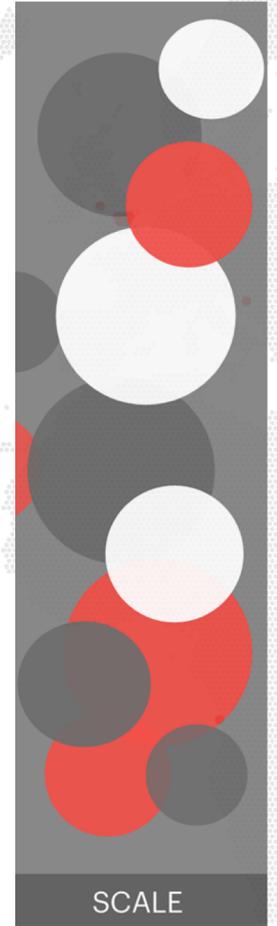
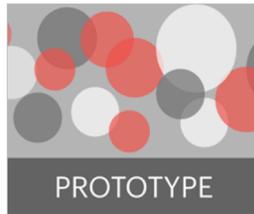
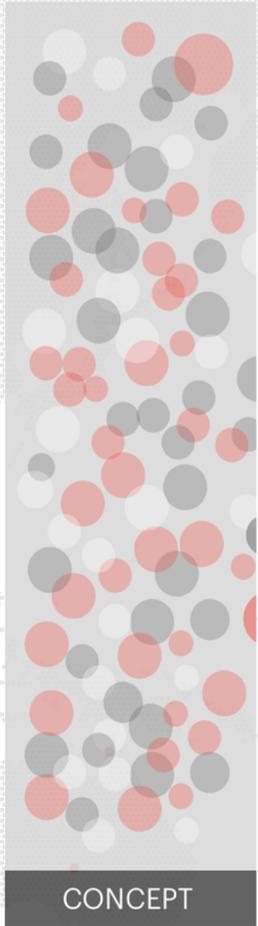


# BECHTEL INNOVATE

Accelerating the adaptation of EPC through applied experience, technology and innovation, ultimately enhancing value for our customers and teams.

less  more

RELATIVE INVESTMENT/  
STRATEGIC FOCUS



**\$60M**  
investment  
over 3 years

**370,000+**  
hours spent  
innovating 

 **20+**  
academic  
collaborations

**15**  
patents

**85,000+**  
views on internal  
crowdsourcing  
platform 

**3,000+**   
ideas submitted

**DELIVERY GOAL:**  
30% schedule  
improvement   
20% cost reduction

**1,600+**  
mobile field  
work stations 

**400+**  
start-ups  
evaluated

**45**   
safety  
innovations  
prototyped

**12,000+**  
participants  
company-wide 

**300+**  
customer  
engagements 



**61**  
#Ideas

**55**  
#locations

**230**  
#deployments



Better. Faster. Leaner.



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*We exist to serve and learn every day.*





1962



2012

A man wearing a blue uniform and glasses, with his right hand raised in a 'stop' gesture. He has a slightly exasperated or dismissive expression. The background shows an outdoor setting with trees and a building.

**SORRY FOLKS. NOTHING TO SEE  
HERE BUT**

**INCREMENTAL TECHNOLOGY  
IMPROVEMENTS.  
MOVE ALONG.**



LUCKEY

# Oculus Rift: Step Into the Game

by [Oculus](#) · You're a backer

Home

Updates **51**

Backers **9,522**

Comments **2,075**

Long Beach, CA

Technology

Funded! This project was successfully funded on Sep 1, 2012.



**9,522**

backers

**\$2,437,429**

pledged of \$250,000 goal

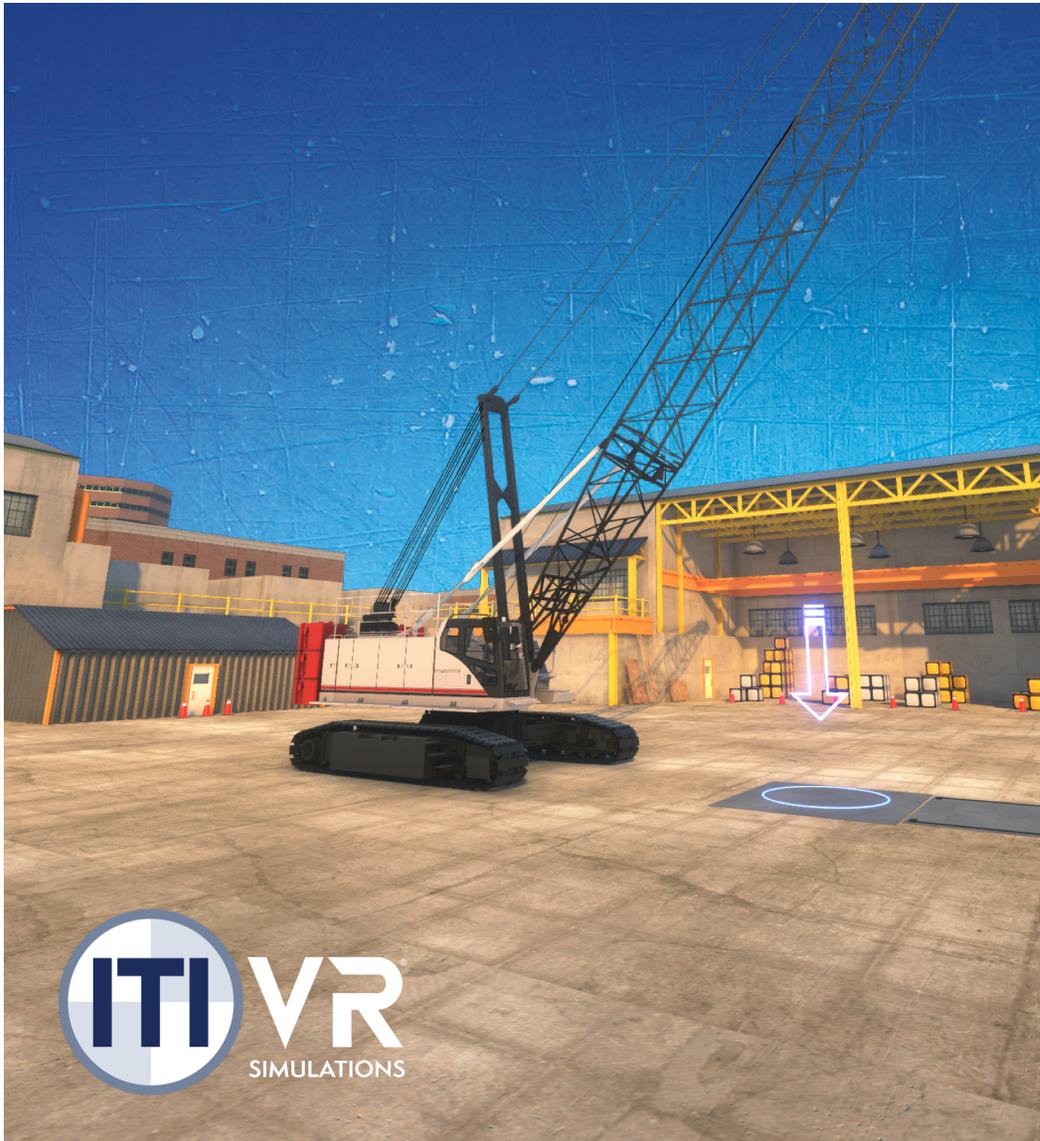
**0**

seconds to go

Oculus

Project by  
**Oculus**  
Long Beach, CA  
[Contact me](#)

2012



**MOTION BASE SIMULATOR STATION**



Full-motion actuation and configurable with various controller pods.

**DESKTOP SIMULATOR STATION**



Operates all crane types with any controller options.

**MEWP SIMULATOR STATION**



Mobile Elevated Work Platform for the Boom and Scissor Lift Simulators

**TWIN SINGLE AXIS POD**



[LEARN MORE](#)

**MULTI-AXIS POD**



[LEARN MORE](#)

**TRIPLE SINGLE AXIS POD**



[LEARN MORE](#)

**TOWER CRANE POD**



[LEARN MORE](#)

**MODULAR FOOT PEDAL**



[LEARN MORE](#)

**CARRY DECK CONTROL POD**



CARRY DECK CRANE

[LEARN MORE](#)

**BOOM TRUCK CONTROL POD**



BOOM TRUCK

[LEARN MORE](#)

**BELLY BOX REMOTE CONTROL**



OVERHEAD/GANTRY CRANE

[LEARN MORE](#)









to



- “We like what you’re doing.
- We are going to be your biggest customer.
- With your current pricing model, we’ll put you out of business – change it.
- We want you to fast-track a bunch of features we want so you solve our problems first.”



## The Elon Musk Post Series

📅 March 28, 2017 By Tim Urban

In 2015, I got a call from Elon Musk. Not something you expect to happen. What ensued was a six-month deep dive into the world of Elon and his companies and four long articles about what I found. Here they are:

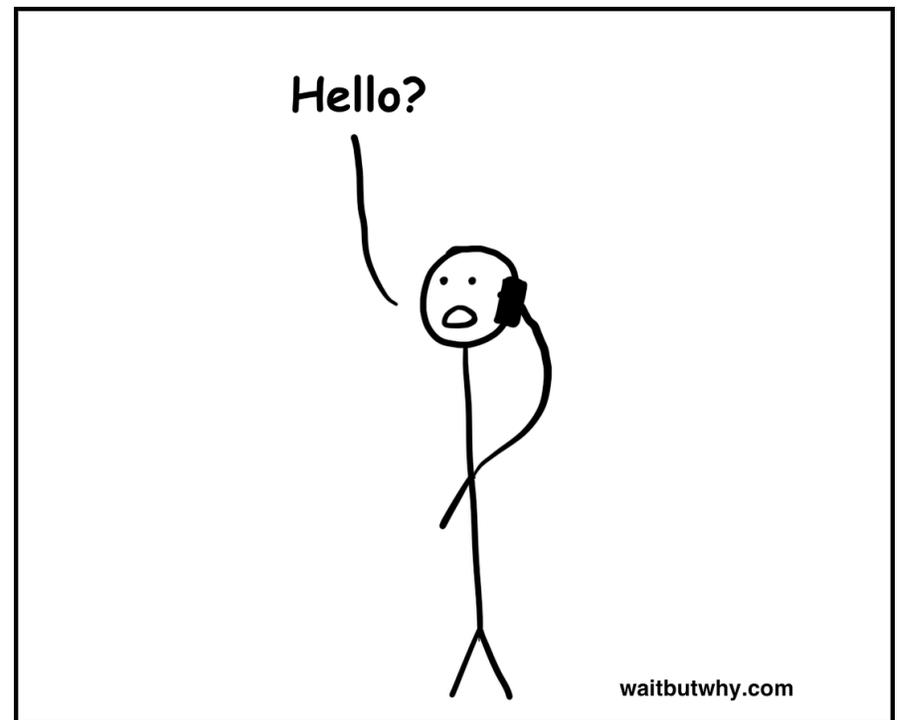
**[Post 1: About Elon—and an intro to the whole series](#)**

**[Post 2: The full story with Tesla](#)**

**[Post 3: The full story with SpaceX](#)**

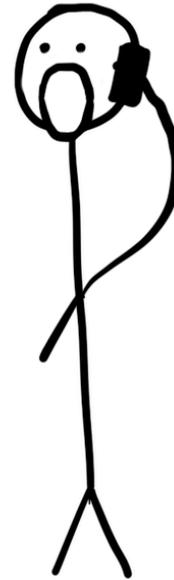
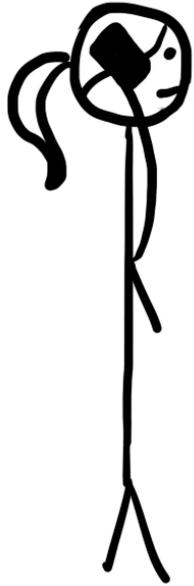
**[Post 4: About Elon’s secret sauce—the way he thinks](#)**

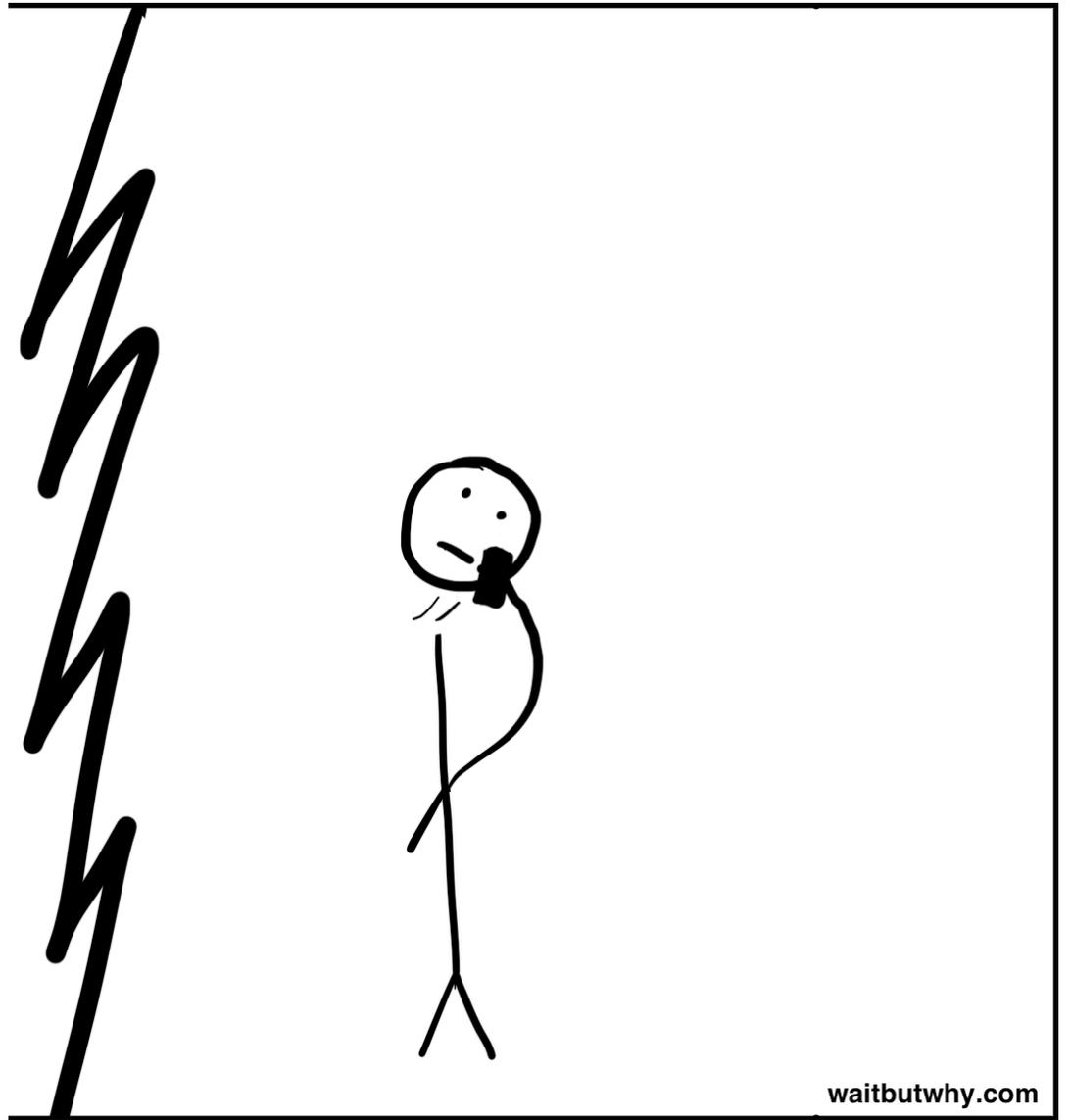
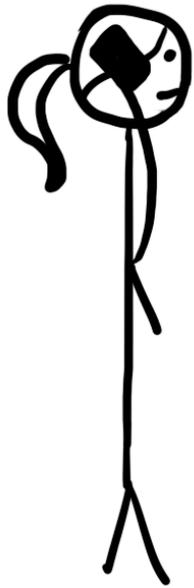
Then, in 2017, Elon started a new company, and I dove back in:

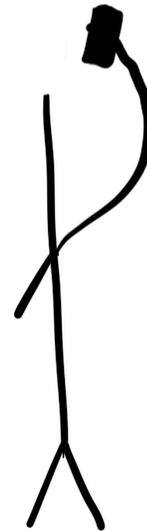
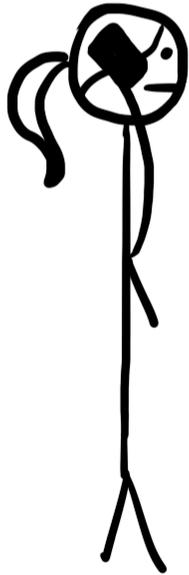


Hi Tim - Thanks for taking the time to get on the phone. I work with Elon Musk. He likes Wait But Why, and he was wondering if you'd ever be interested in writing about what's going on in some of the industries he's involved in.

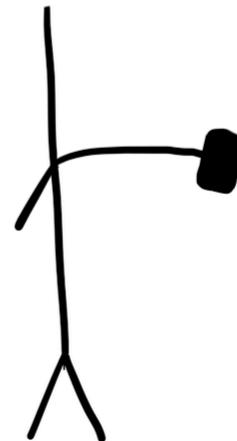
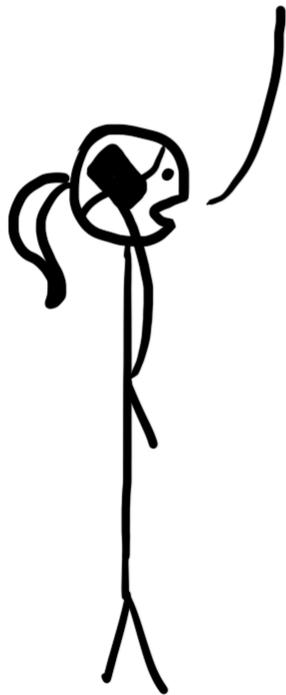




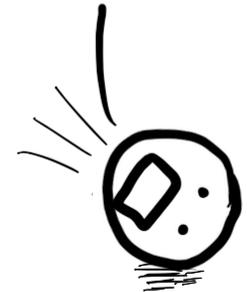


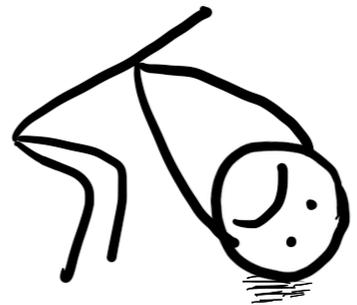


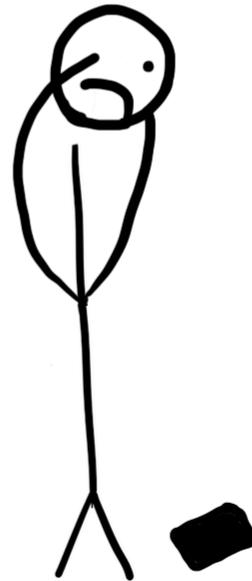
But I totally understand if you're—



HOLD ON







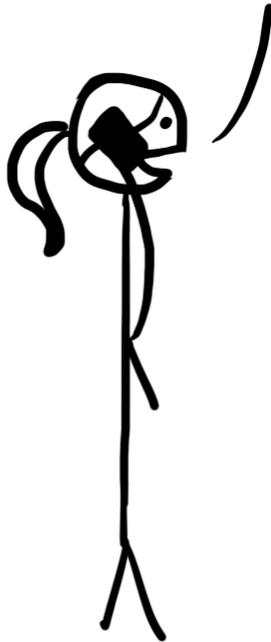
Sorry, I dropped my phone. Yes, I think I can make that work. Hm let me look at my schedule oh okay I'm free to do a call anytime between midnight and the next midnight any day in the future while I'm living.

Great! I'm sure we can make something work.



Sorry, I dropped my phone. Yes, I think I can make that work. Hm let me look at my schedule oh okay I'm free to do a call anytime between midnight and the next midnight any day in the future while I'm living.

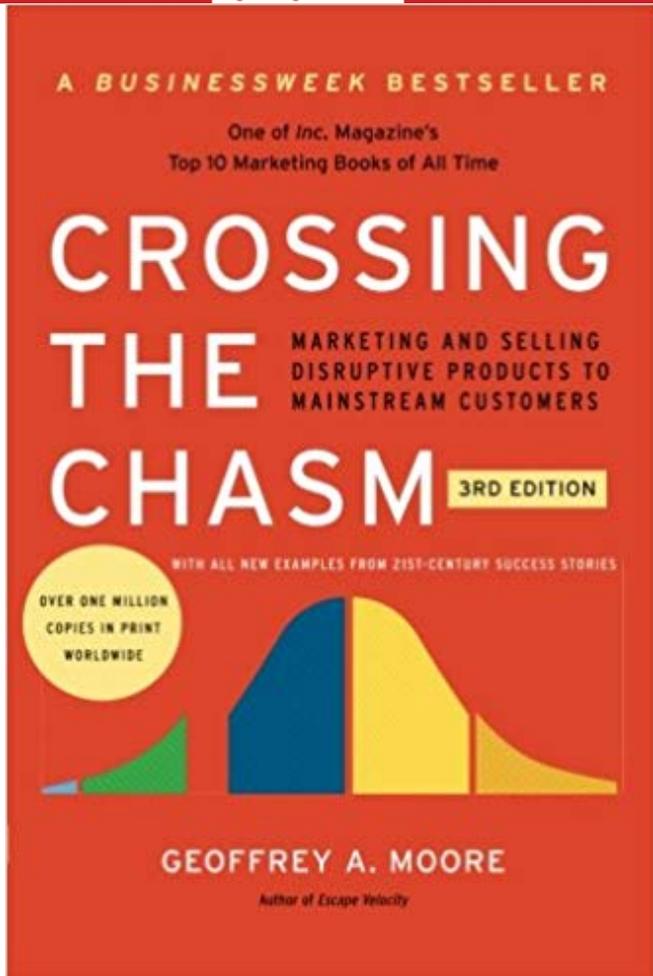
Great! I'm sure we can make something work.



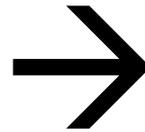
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**Entrepreneur**



**&**

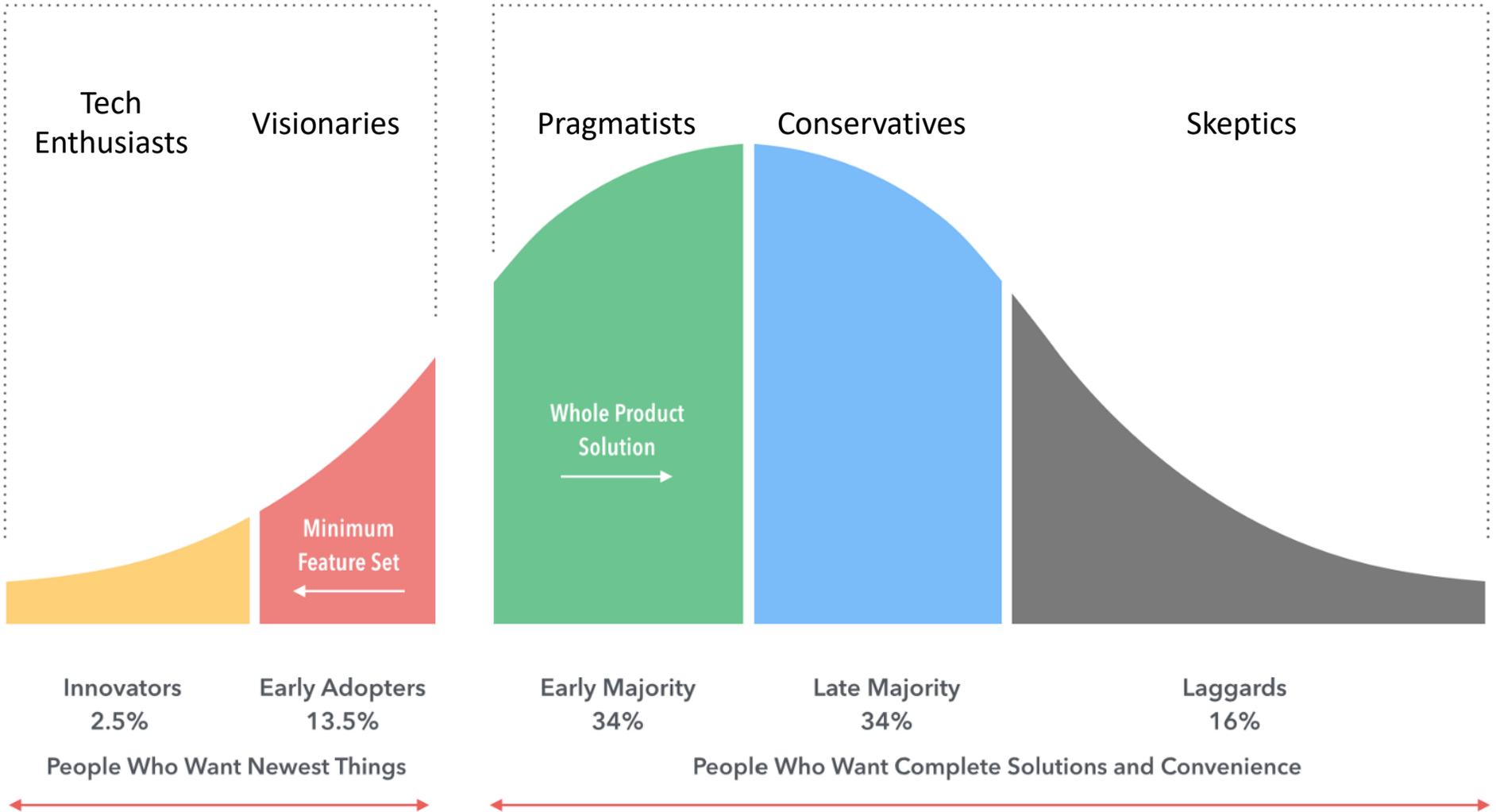
**Corporate  
Visionaries**



**(Early Adopters)**

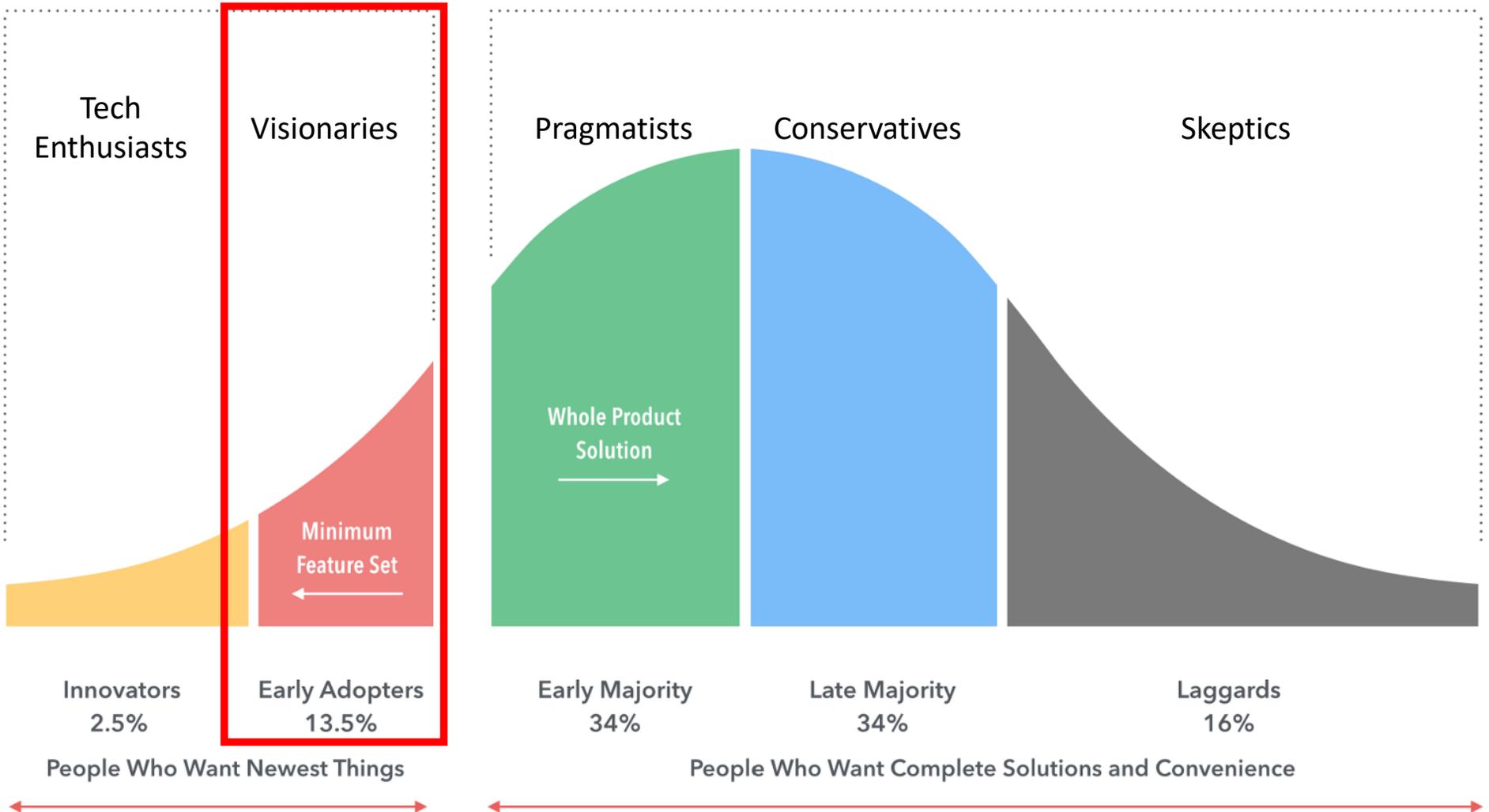
Early Market

Mainstream Market



Early Market

Mainstream Market



## Entrepreneur

- Vision for their Product

## Corporate Visionaries

- Vision for quantum leap in business results

## Entrepreneur

- Vision for their Product
- Understanding of their long-term product-market fit

## Corporate Visionaries

- Vision for quantum leap in business results
- Less/No regard for product-market fit

## Entrepreneur

- Vision for their Product
- Understanding of their long-term product-market fit
- Every dev sprint creates value-add features

## Corporate Visionaries

- Vision for quantum leap in business results
- Less/No regard for product-market fit
- Every milestone creates business result wins

## Entrepreneur

- Vision for their Product
- Understanding of their long-term product-market fit
- Every dev sprint creates value-add features
- Willing to take significant business risks

## Corporate Visionaries

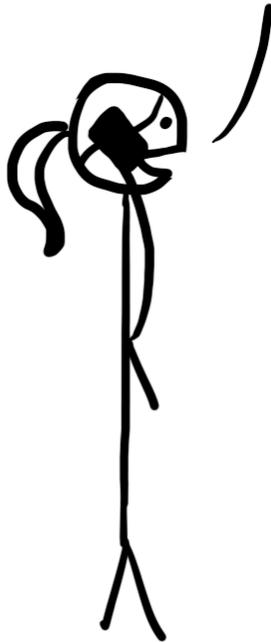
- Vision for quantum leap in business results
- Less/No regard for product-market fit
- Every milestone creates business result wins
- Willing to take significant business risks

# Keys to Collaboration Success

Key	Collaboration Outcome
<ul style="list-style-type: none"><li>• Development milestones with Visionary highly-involved</li></ul>	<ul style="list-style-type: none"><li>• 5 key customer representatives involved for 18 months</li></ul>
<ul style="list-style-type: none"><li>• Make milestones an accomplishable amount of work in earth time</li></ul>	<ul style="list-style-type: none"><li>• 18-month project, 4 major milestones</li></ul>
<ul style="list-style-type: none"><li>• Milestones should provide Entrepreneur with marketable product features</li></ul>	<ul style="list-style-type: none"><li>• 5 new marketable crane simulations and 12 new software features – all marketable</li></ul>
<ul style="list-style-type: none"><li>• Milestones should provide Customer with concrete ROI that can be celebrated</li></ul>	<ul style="list-style-type: none"><li>• Successful implementation of 10 systems to-date</li></ul>

Sorry, I dropped my phone. Yes, I think I can make that work. Hm let me look at my schedule oh okay I'm free to do a call anytime between midnight and the next midnight any day in the future while I'm living.

Great! I'm sure we can make something work.



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# Israeli automotive industry in the past



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# Israeli automotive industry today



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**“The future of autonomous vehicles comes down to saving lives, and it’s why I led the \$15.3 billion purchase of Mobileye” says Intel CEO Brian Krzanich**



# Overview

## Israel's Construction industry

60k

Apartments/year

Ministry of  
defense

more than

**\$25Billion**

Industry

**\$5Billion**  
TLV light rail  
construction

10%

GNP

2 New Harbors

New Airport

Foreign  
companies

# Meet ConTech

The Partners

The pillars of the  
Construction Israeli industry



Israel Builders Association  
**Boney Ha'aretz**



MINISTRY OF  
**CONSTRUCTION  
AND HOUSING**



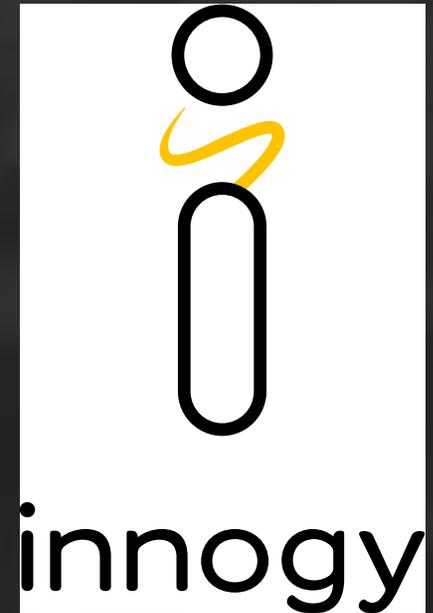
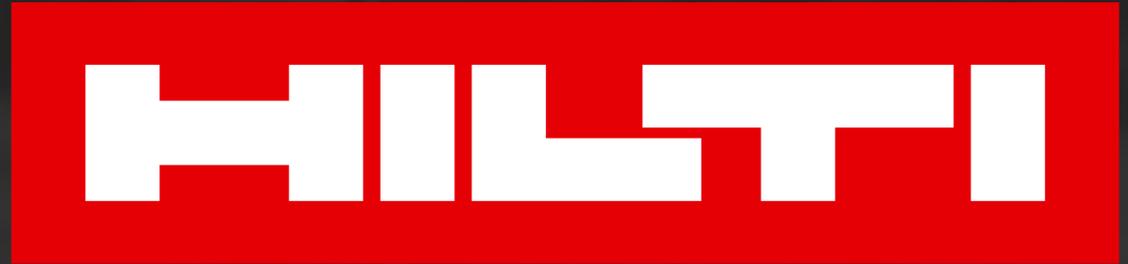
Ministry of Economy  
*Soulful Economy*

# | Our activities

- » Building an **ecosystem** through industry events, Social networks, content creation and more
- » **Incubation** program
- » Cooperation with **industry partners**



# | Global Partners



# | 1<sup>st</sup> Use Case-Autonomous crane

**INTSITE**  
BUILD BY AI

# | Commercial project in the north of Israel



# Remarking results

## Crane operator

- Significant improvement of the site view
- Better communication with the workers on site
- A sense of a safer operation of the crane
- Efficiency Improvement

## Site manager

- Significant increase in the ability to control the site and to solve problems on real-time

# Remarking results

	Before ForeSite	With ForeSite
<b>Crane efficiency</b>	72%	85%
<b>Crane safety</b>	A simple camera and monitor for the crane operator	Safety alerts and an optimal site view for the crane operator
<b>Additional equipment</b>	Extra mobile crane to assist the tower cranes on site	The tower cranes operating on site are sufficient for all the site lifting tasks

“I was surprised to discover the gap between the high efficiency of the crane I was reported of by the site manager and the crane operator and the low efficiency that was detected by FORESITE. Lucky enough, the report included a full schedule of the crane operation so I could solve the inefficiencies after detecting them. Thanks to that I could save the site an addition of a mobile crane for the next months, that last month cost me around 50,000\$. **This is a yearly saving of 600,000\$, before starting to talk about the rest of the benefits”**

Site project manager- Semion Kagan

## | 2<sup>nd</sup> Use Case- Workplace productivity & wellbeing



**KENKO TECHNOLOGY**

# Kenko Technology Solution Overview

## DATA COLLECTION

Collecting physiological data using wearable devices

## EMOTION ANALYSIS

Kenko Technology AI translates the physiological data to emotion data

## DESIGN CONSULTANCY

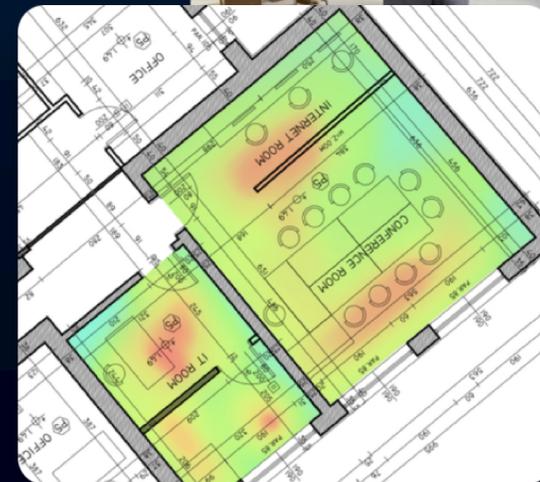
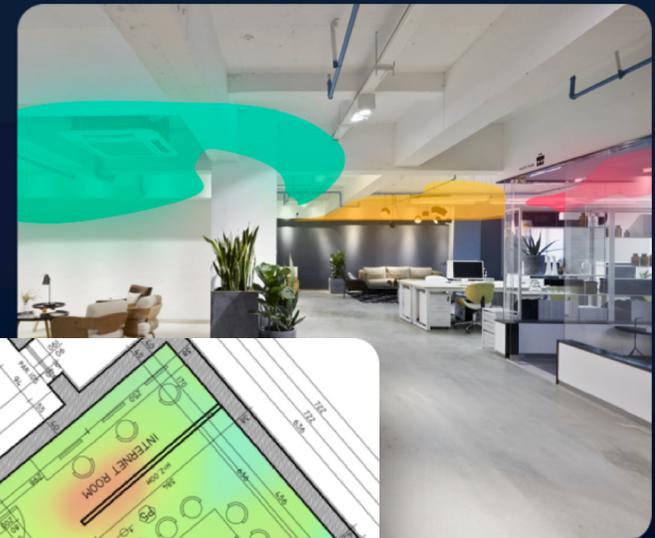
According to each corporate customer goals & requirements



[www.kenko.tech](http://www.kenko.tech)

# Workplace productivity & wellbeing

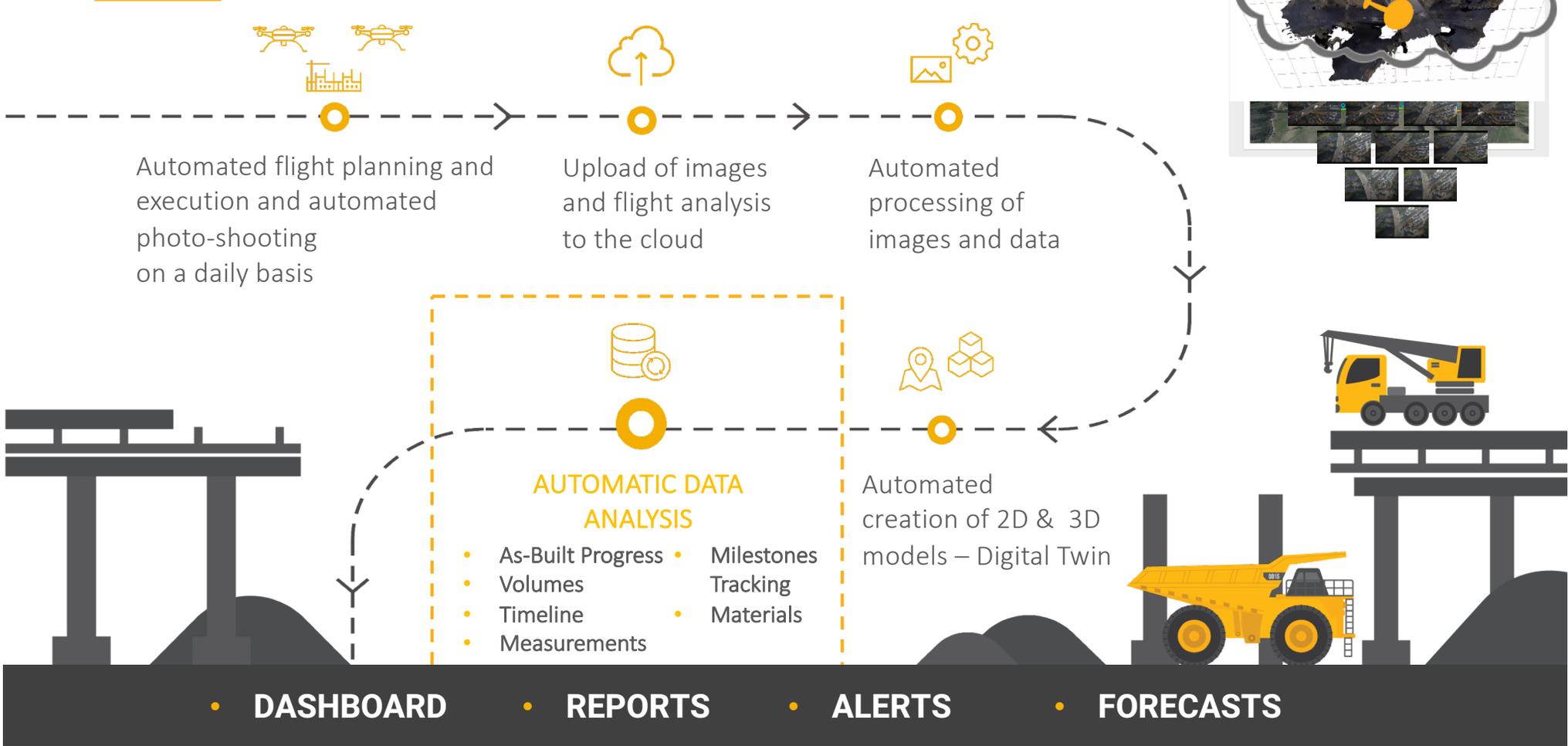
- Transforming traditional office space design practices with Emotion AI
- Combining indoor location with emotions data to provide an "emotional heatmap"
- Demonstrating your client the effect of your hard work on redesigning their office



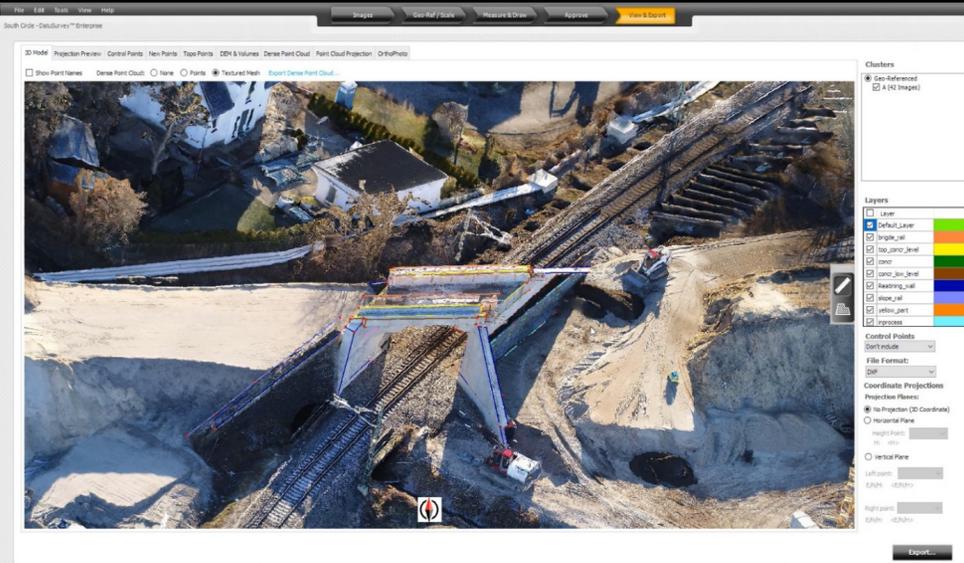
# | 3<sup>rd</sup> Use Case - Daily monitoring of progress, quality and budgets



# THE SOLUTION - DATUBIM END TO END PROCESS

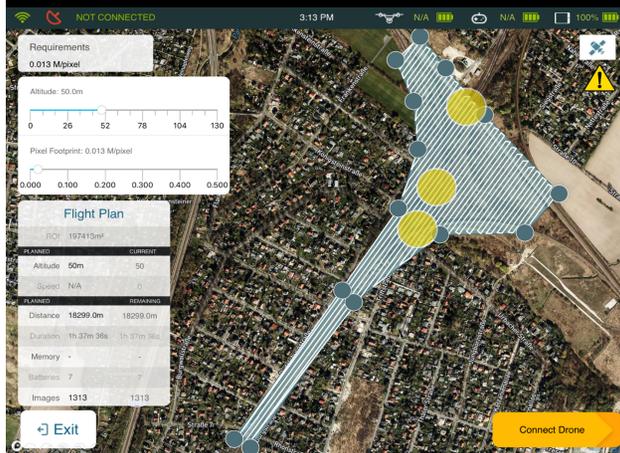


## Accurate measurements & tracking of constructed objects

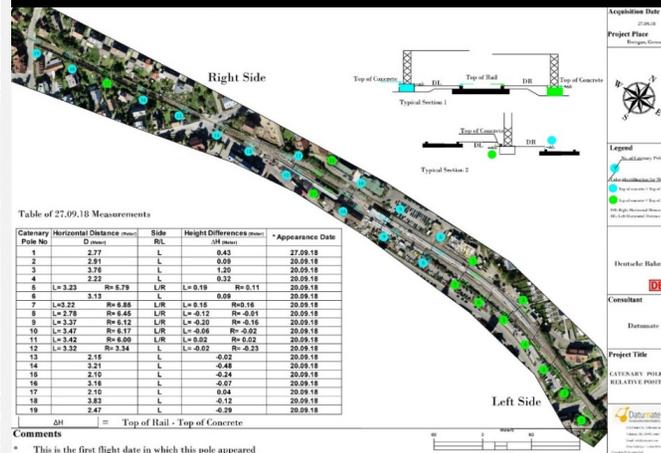


- Deutsche Bahn – The largest railway in Europe
- Datumate was chosen by DB out of 30 startups
- After successful pilot, awarded 2 projects
- Part of DB 2020 BIM strategy

## Flight management system



## Monitoring catenary poles construction



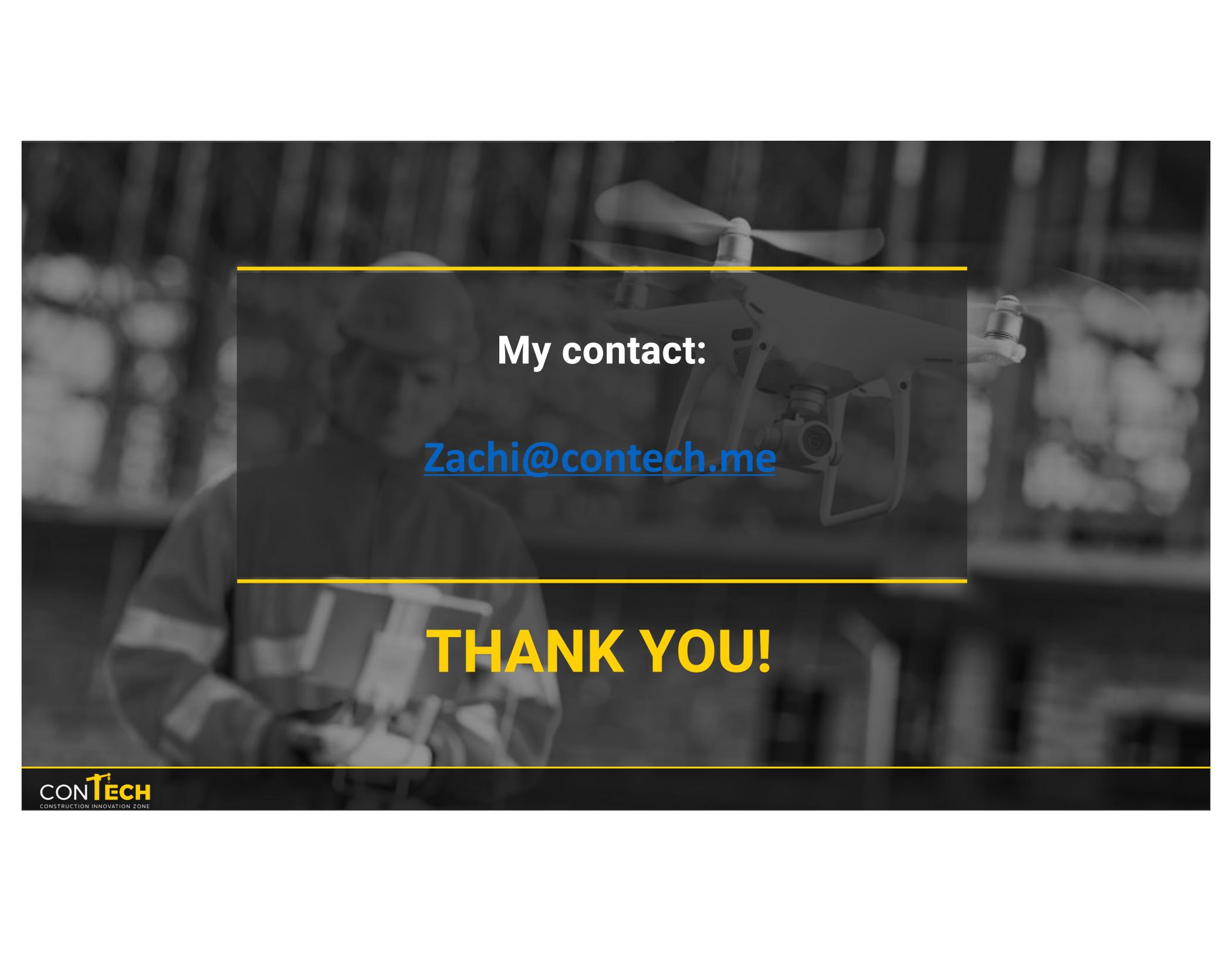
## Earthwork & volumes tracking



## | Back to the start-up nation

**“We have the power to create change and the opportunity to have an impact. A revolution against convention is necessary. It requires daring, dissatisfaction, and healthy and vibrant chutzpah.”**





**My contact:**

[Zachi@contech.me](mailto:Zachi@contech.me)

**THANK YOU!**

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## INTRODUCTION

**Kyle Slager**

Founder & CEO

*Raken*