ORACLE

Managing a Construction Site During COVID-19

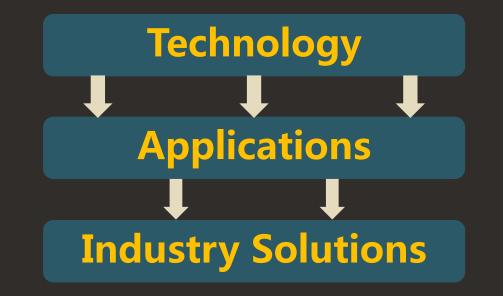
Innovation in Action

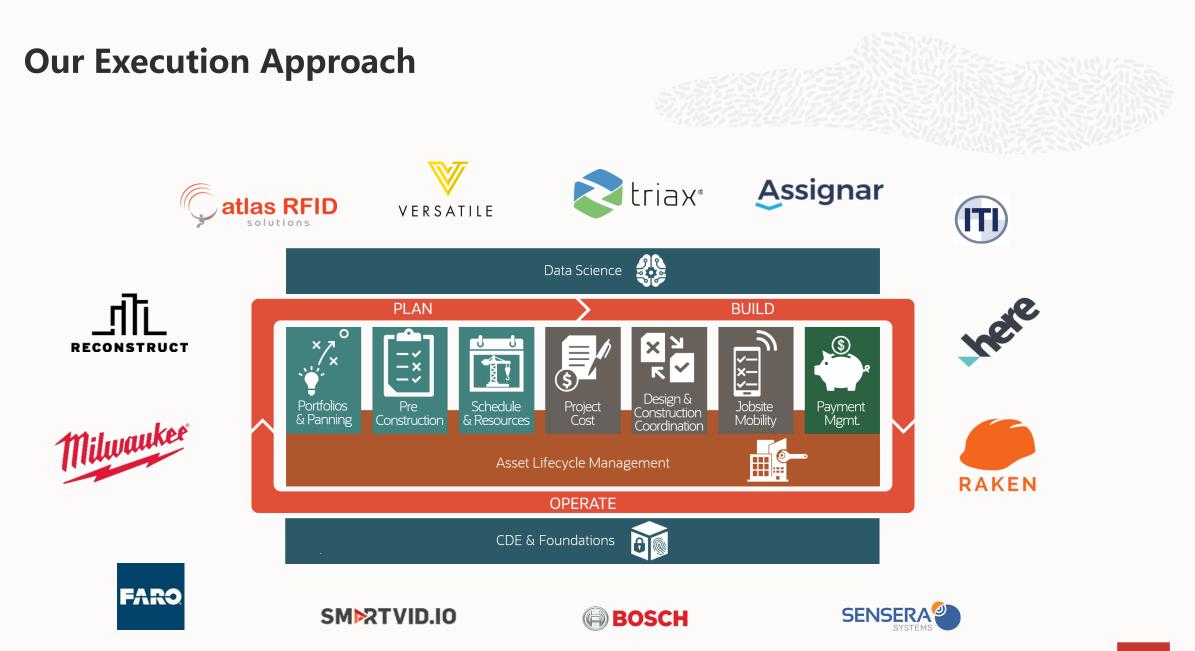
Burcin Kaplanoglu Executive Director, Innovation Officer Oracle Global Business Units November 5, 2020 Our mission is to help people see data in new ways, discover insights, unlock endless possibilities.



Our Heritage







Lab Vision

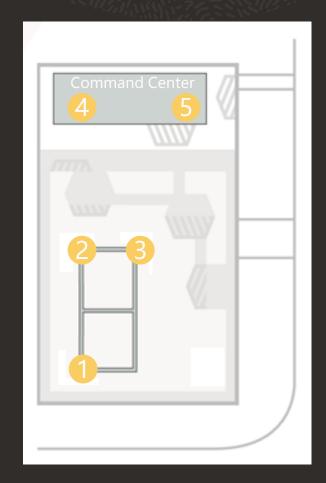
A place for Oracle and our partners to prove how our customers can achieve efficiencies and grow profits

Phase I

Phase II

Phase I Experience Map

- Material Tracking and Readiness: Tracking + drone + gate reader
- 2. Progress Reporting with Autonomous Devices : Drone + rover + camera
- **3. Internet of Things**: Worker location + equipment authorization + fall alert + tool tracking
- 4. Command Center: BIM model coordination and review with VR + virtual progress and risk reporting + Lean task management + earned value management + 4D/5D BIM + AI-powered image recognition + site delivery tracking + virtual training
- 5. Augmented Reality and Industrial Knowledge Transfer Platform: Punch list + equipment tagging + built progress with 3D model overlay + data visualization





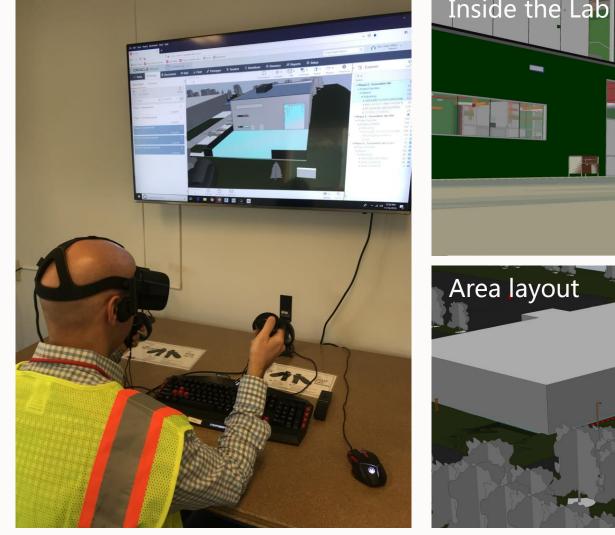


Innovation Lab Phase II - Construction and Tech on Site





Visual Command Center – BIM Model Coordination – Asset Digital Twin

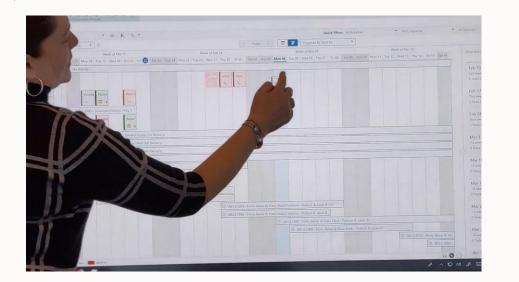






Virtual Command Center – Digital Planning Board – CPM + Lean





Actions - View Tasks by Activity	y • 🖷 🗙				Quick Filter	All Assigned Users	All Companies	WBS - (1) Selected
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Material Readiness and Contactless Site Deliveries

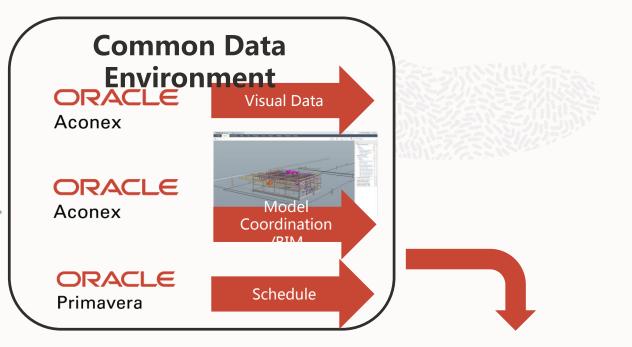




- Jovix's Supplier Mobile apps are paired with automated gate readers
- Materials are equipped with passive RFID tags to automatically notify teams of arrivals

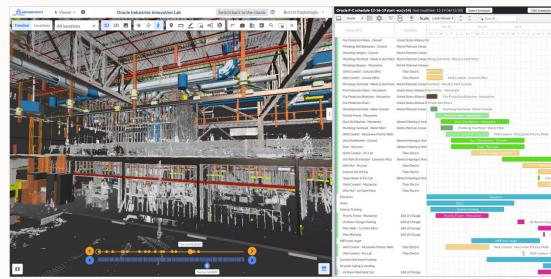
- Material data is then visualized in Jovix throughout the supply chain
- The general contractor can see the materials within the supply chain as they relate to the work package and the Oracle Primavera Cloud Schedule ID



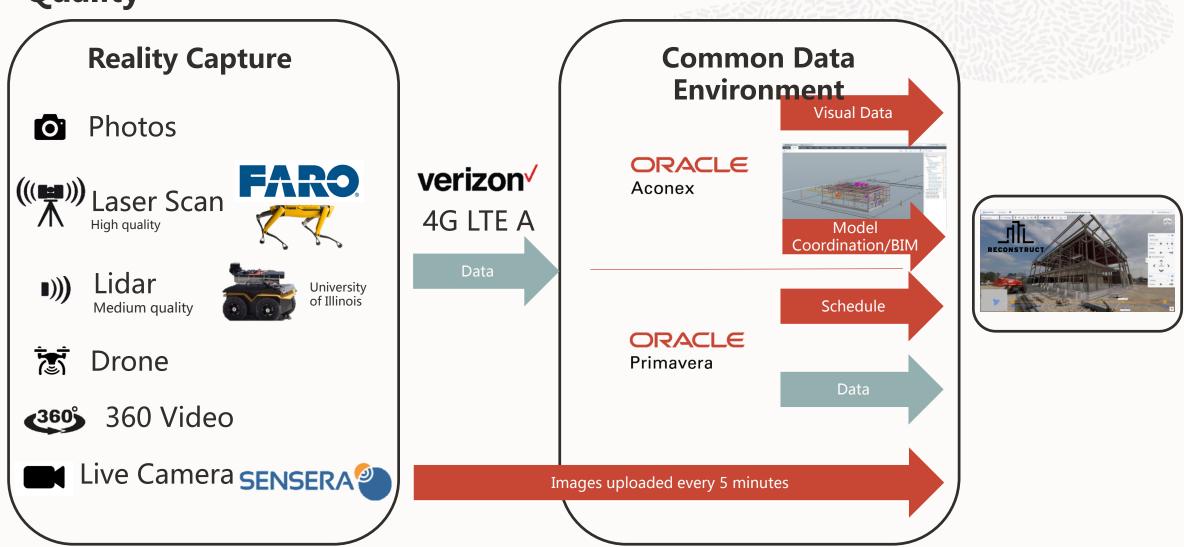




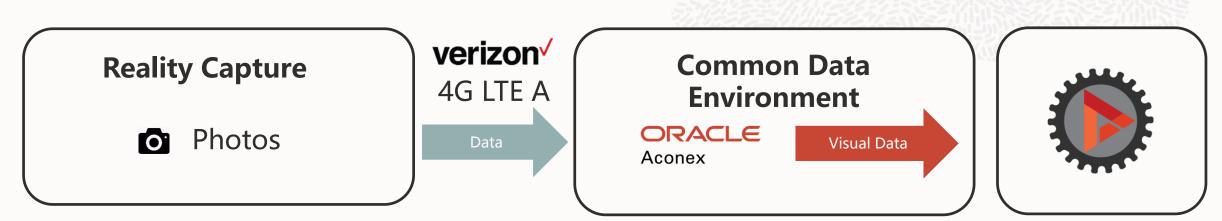




Visual Command Center – Monitoring Progress, Schedule, Risk + Quality

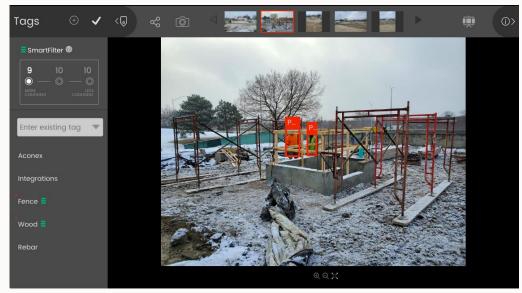


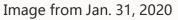
Social Distancing – Monitoring Health and Safety



Use Cases:

- PPE compliance
- Housekeeping
- People in group mobile access in near real time*
- Work at height
- Construction activities





Social Distancing – Monitoring Health and Safety



Proximity Trace[™]





 Real-time audible alert for close contact interactions 0

Gateway:

attendance, transmits

configurations, including

interactions to cloud

Can facilitate remote

Logs headcount/

sounds

- Records worker interactions for contact tracing
- Rechargeable battery with weeks to months of battery life between charges
- No GPS or off-site tracking



- Real-time audible alert and flashing red LED will be emitted when worker
- Alert and LED can be turned off for contact tracing only
- Escalation alert allows warning beep for timely distance correction; alarm increases in intensity if distance is not corrected
- Alarm can be silenced or temporarily disabled with a button push for accepted close contact work



- Headcount/attendance
- Worker profile management
- Device management and administration
- Self-service contact tracing report; data includes timestamp, duration of interaction and participants

Proximity Trace at a Glance:

- Gateways are cellular
- · Device-to-device and device-to-gateway signaling
- No dependency on client WIFI or internet
- No location data on site or off site

Improved Payment Outcomes

Oracle Textura Payment Management

On the Innovation Lab project, Oracle's cloud billing, compliance management and payment solution:

- Enabled accounting staff to work remotely
- Reduced the average time it takes to pay subcontractors by two weeks from March to May
- Cut the time to produce an approved invoice by more than 50%



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		Northern Hospital Expansion	72431	NEW	Ryan Joseph	Coastal Construction	\$31,702,500.00	\$1,218,500.00	\$33,051,000,00	88,875,550,99	\$1,085,042.00	38,258,525.26	589	
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Oracle Construction & Engineering LAD team

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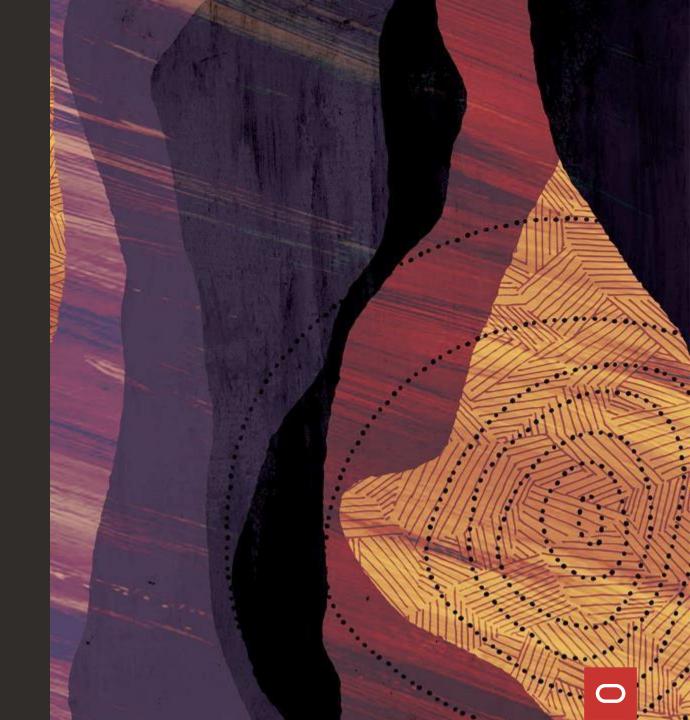


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Thank you



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