INNOVATION & DIGITAL TRANSFORMATION AT COLAS INC.

IAPA March 2019
Colas Inc.

• Vertically integrated road and infrastructure construction company

• 7 companies in the US

• Operation Worldwide
Why are we innovating?

Making our team’s life
- Safer
- Easier
- More efficient
- Better

Savings

New ventures and revenues
Our Strategy

Divided into 4 segments:

- Global Innovations
- Local Innovations
- Digital Transformation
- Moonshots
Global Innovations
Video of the Ekso?
Solar panels on which cars & trucks can drive

Very thin

Between 40 and 140 Kwh / m2 per year

Over 37 experimental installations around the world

Not competing with roof PV

Autonomous Generator (camera, signs, counting devices...)

WattWay
West Point, Georgia (USA)
Tourouvre (France)
Reunion Island
Sagamihara (Japan)
Utrecht (Netherlands)
Bettembourg (Luxemburg)
Flowell, a Colas innovation to foster more mixed use
Local Innovations (products)
Automatic Flagger System

Safety first

Video recordings for liability / insurance

But not yet connected to the cellular network

High ROI
Digital Transformation
Truck logistic optimization
Truck logistic optimization

For our own trucks and 3rd party

Teaming up with the 3rd party

For all divisions

Better communication
Truck logistic optimization

Project: Mulholland Hwy - IRWS West
Project Number: 10200016
Source: Irwindale Asphalt Plant
Destination: 256024
Load Count: 48
Total Tons: 1,002.27
Material Type: -
Phase Code: -
Shift Note: 

First Ticket: Truck # 100 at 6:28 with 20.61 tons of ARHM GG C. First At Paver: 8:19.

KPI | Shift Ave | Target | Shift %
---|-----------|--------|--------
Tph: Crew | 107.39 | No benchmark target available.
Tph: Truck | 117.12 | No benchmark target available.
FHM | 20.80 | No benchmark target available.
Cycle | 177.5 | No benchmark target available.
TcT | 5.0 | No benchmark target available.

Material | Loads | Tons
---------|-------|------
ARHM GG C | 48 | 1000.27
Truck logistic optimization

Saving of 10% to 15%

Works for either /ton or /hour

Excess charge tickets

The key for success is a new organization

We are bringing on board logistic people

Looking into the « Uber for trucks »
Real Time Data
Real Time Data
The software is not enough
New skills were needed
Truck driver scorecard
Truck driver scorecard
Truck driver scorecard

Driver Safety Details:
Ranked 32 out of 91 by Infractions per Mile for period of 10/01/2018 to 10/12/2018

Total Miles: 753.19 | Total Hours: 41.08 | Idle Hours: 16.44 | Idle %: 40% | Total Infractions: 14 | Trucks Driven:

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<th>Date</th>
<th>Driver Name</th>
<th>Approximate Location</th>
<th>Event</th>
<th>Vehicle</th>
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<th>Max Speed</th>
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Map

Center Map around chosen row in Table | Clear Table Selection | Filter Table by what's currently showing in Map | Reset Map to All
Driver scorecard

For truck drivers but also light vehicles

For safety, fuel efficiency, speed, idle time, seat belt, ...

Safety Team notification

Mobile “Coach App”
Digital Forms to gather data

Too many paper forms

With extra work for an admin to fill the information in Excel

Nothing done that data
Digital Forms to gather data

Mobile friendly forms
Real-time information collection
Real-time creation of dashboards
Sharing dashboards across management
For Safety, Pre-Check, Production, ...
The “1 min enterprise”
Daily Concrete report

1. Your complete name (ex: Joe Smith) *
   Enter your answer

2. Job number *
   Enter your answer

3. How many cubic yard of concrete did you pour today? *
   Enter your answer

Submit
Hello, if you poured concrete today could you please tell me the amount of concrete and the job number? (ex: **40-10196770**)

22-105

Thank you! Keep the Goal Zero Attitude! And have a terrific day!!

Yesterday 5:01 PM

46-19283884

Thank you! Keep the Goal Zero Attitude! And have a terrific day!!
Have you ordered your trucks for tomorrow? If not please call Richard at 7147029409

REMINDER: Please ensure that all your timecards are submitted successfully in HeavyJob, by end of shift(s) Saturday. Thank You, Payroll Team 714-412-2087
Actionable data

Simple dashboards with few KPI

From collect to action in one click

Accessible on PC, iPhone and iPad
Drones for more than stockpiles

We have been using drones for stockpile measurement for 5+ years

Drones for project management, for better communication, takeoff, progress and insurance

On demand 3<sup>rd</sup> party pilots
High Quality Pictures
3D Map
A picture is worth a 1000 words

What’s the value of that 3d model?
Try, fail FAST, learn, repeat

Try, succeed, learn, improve
We don’t want to be those guys
Questions?
Thank you!