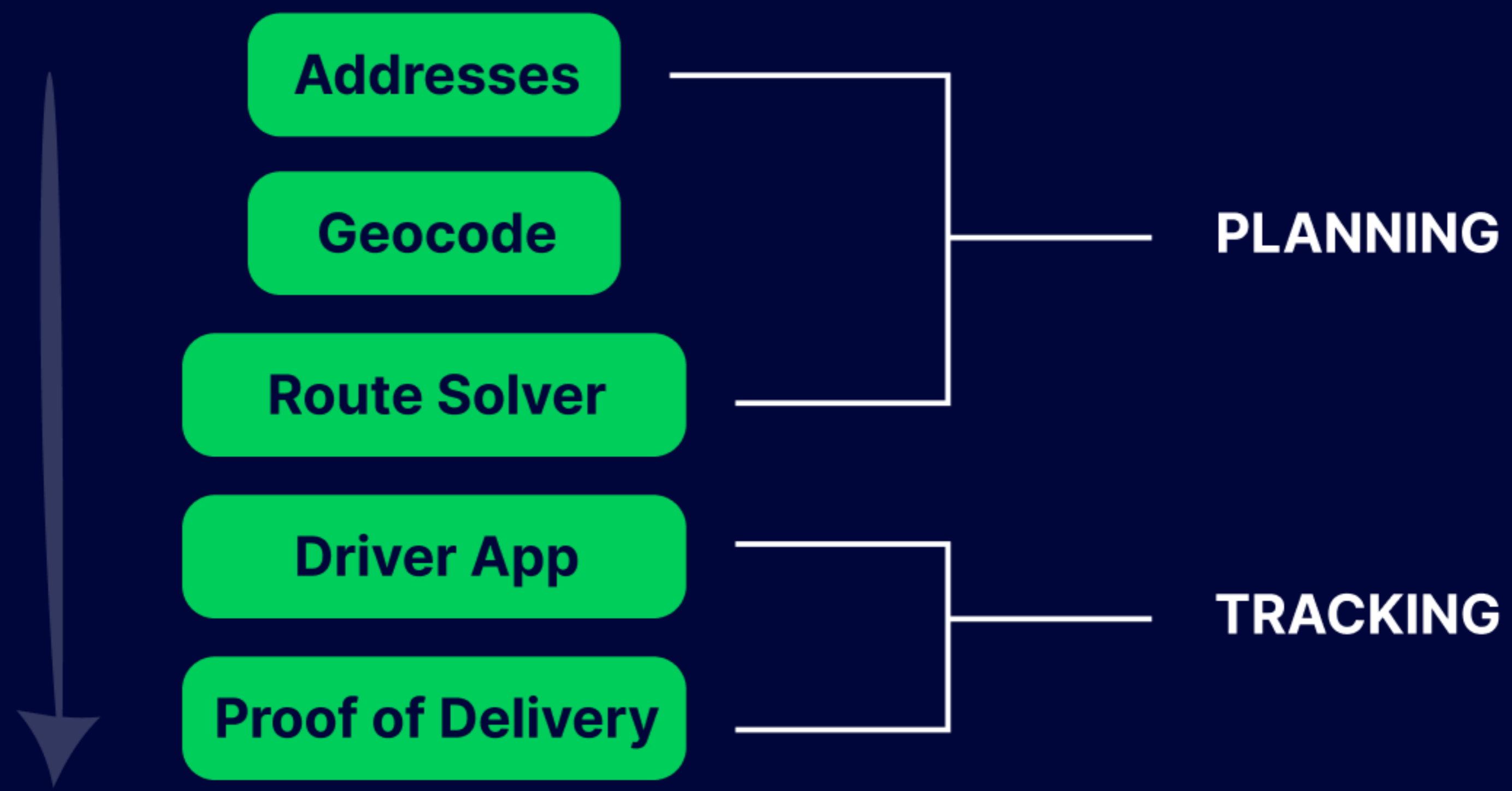




Intelligence & Learning in Last Mile Logistics

S A U R A B H D A S





Sounds like it should work. Except...

1

Wrong fulfilment locations

<20%

Deliveries completed at pinpoint location

2

Variable service times

50%

Deviation of last mile deliveries attributed to service time

3

Inefficient Routes

20%

Delays accounted for by inefficient routes



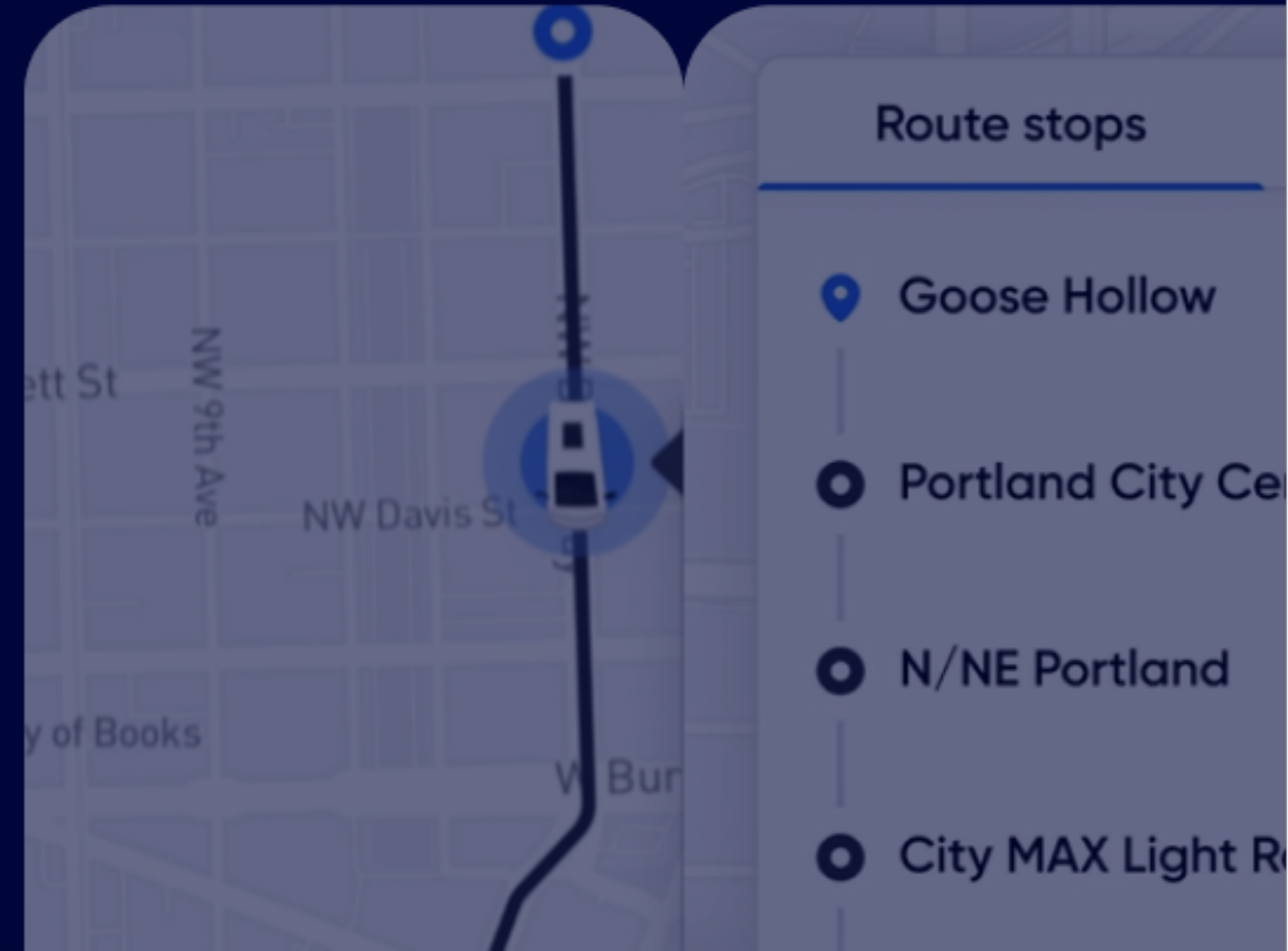
Let's take a step back

Broader problems



Fulfillment Failure Cascade

Single exception to happy path impacts many customers in sequence





Let's take a step back

Broader problems



Fulfilment doesn't respond to dynamic conditions

Issues are not propagated to ops or customers

Ops managers cannot take steps to rectify mistakes before they become errors



Let's take a step back

Broader problems



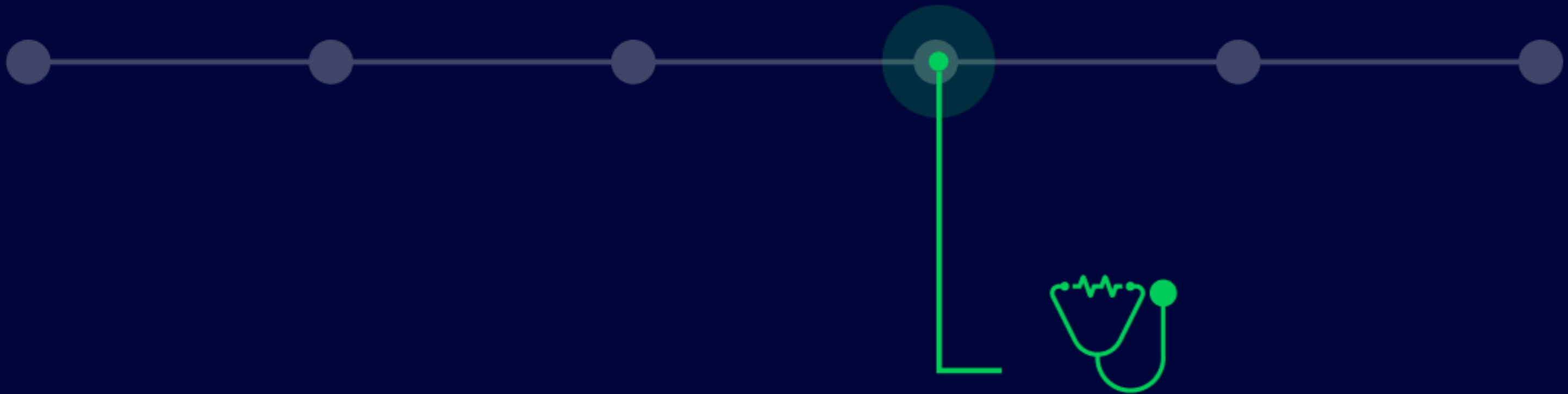
Overly generous delivery promises

Fleets which have tighter predictability can offer sooner deliveries and have higher fleet efficiency



Let's take a step back

Broader problems



Diagnosing Issues

Cannot diagnose underlying and persistent issues with the fleet



Let's take a step back

Broader problems



Does Not Improve

The next delivery is no better than the previous one – the system is not learning



Legacy Logistics Tech

Built for a static world



Legacy tech is built for static, scheduled routes



Everything is dynamic – customers want things on demand or at a convenient point in time. Things go wrong.



Workforce has changed



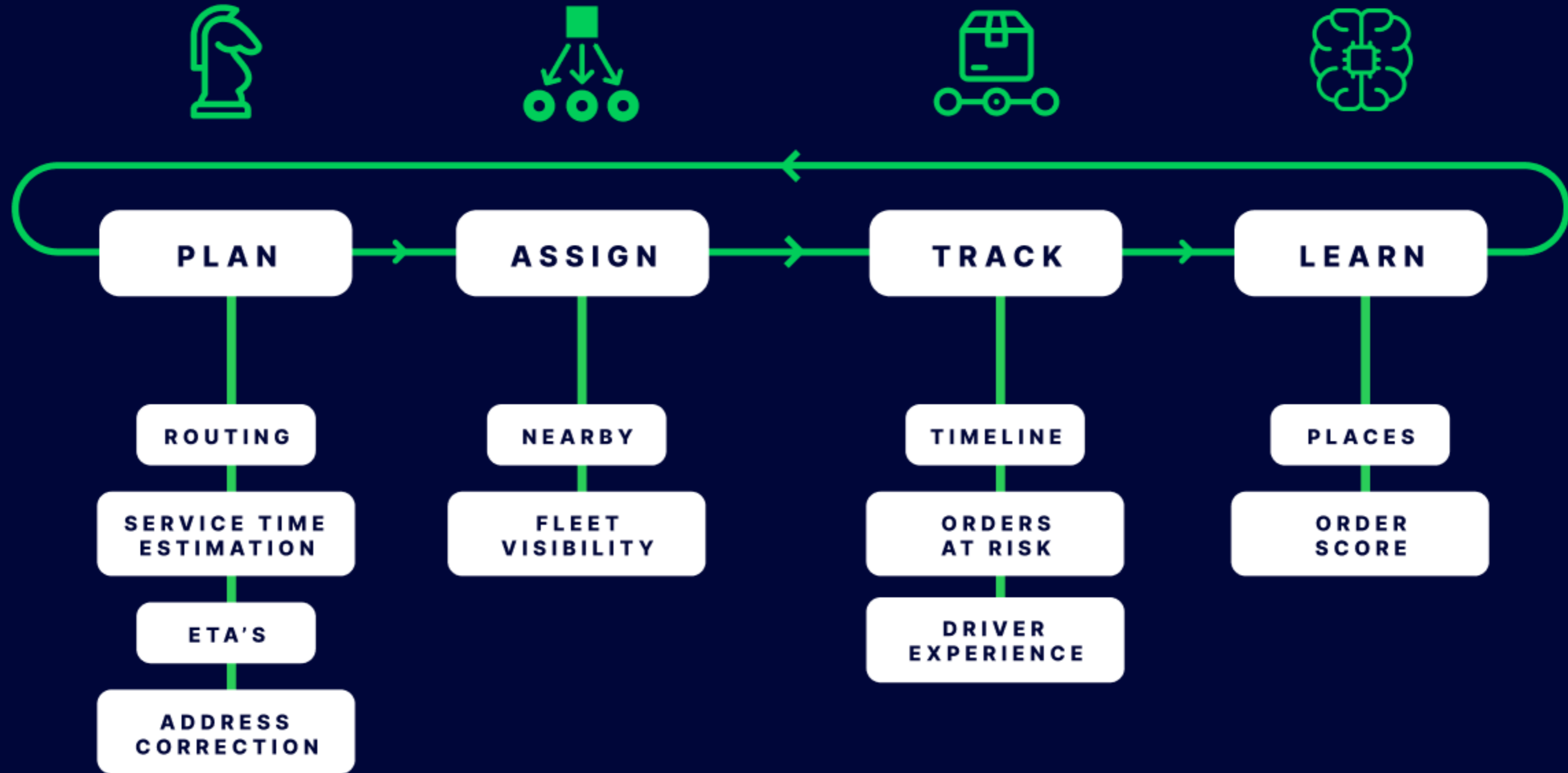
Consumer expectations have changed



Tech has not changed



LOGISTICS TECH 201





Orders at Risk

AT RISK ORDERS (10) ALL ORDERS (30) ALL ROUTES (5)

Increasing ETA (2) Route deviation (2) Delayed (2) Cold chain time breach (2) Driver offline (2)

Search by order id Select filters

Order ID	Status	Capacity	Unit	Scheduled	Expected	Actual	Notes	Destination
12345 by Charles	Ongoing	80%	1 unit(s)	10:00 am, Feb 01	9:50 am, Feb 01	9:55 am, Feb 01	Increasing ETA	Union Square, San Francisco, CA
12345 by Charles	Ongoing	80%	1 unit(s)	10:00 am, Feb 01	9:55 am, Feb 01	9:58 am, Feb 01	Increasing ETA	Union Square, San Francisco, CA
12345 by Charles	Ongoing	80%	1 unit(s)	10:00 am, Feb 01	9:55 am, Feb 01	9:45 am, Feb 01	Route deviation	Union Square, San Francisco, CA
12345 by Charles	Ongoing	80%	1 unit(s)	10:00 am, Feb 01	10:00 am, Feb 01	10:00 am, Feb 01	Route deviation	Union Square, San Francisco, CA
12345 by Charles	Ongoing	80%	1 unit(s)	10:00 am, Feb 01	10:00 am, Feb 01	10:03 am, Feb 01	Delayed	Union Square, San Francisco, CA
12345 by Charles	Ongoing	80%	1 unit(s)	10:00 am, Feb 01	10:00 am, Feb 01	10:05 am, Feb 01	Delayed	Union Square, San Francisco, CA
12345 by Charles	Ongoing	80%	1 unit(s)	10:00 am, Feb 01	10:00 am, Feb 01	expired at 9:50 am, Feb 01	Cold chain time breach	Union Square, San Francisco, CA

Order 12345

Ongoing Increasing ETA

Driver Charles

Unit 2 units

Scheduled 10:00am, Feb 01

Expected 9:50am, Feb 01

Actual 9:55am, Feb 01

Destination Address, address, address, address, address

metadata store001

RESCHEDULE RE-ASSIGN SNOOZE CANCEL COMPLETE



Firefighting

Consumers only care about Logistics when something goes wrong



Proactive

Flags off many kinds of risks while fulfilment is pending – via webhooks and on dashboards

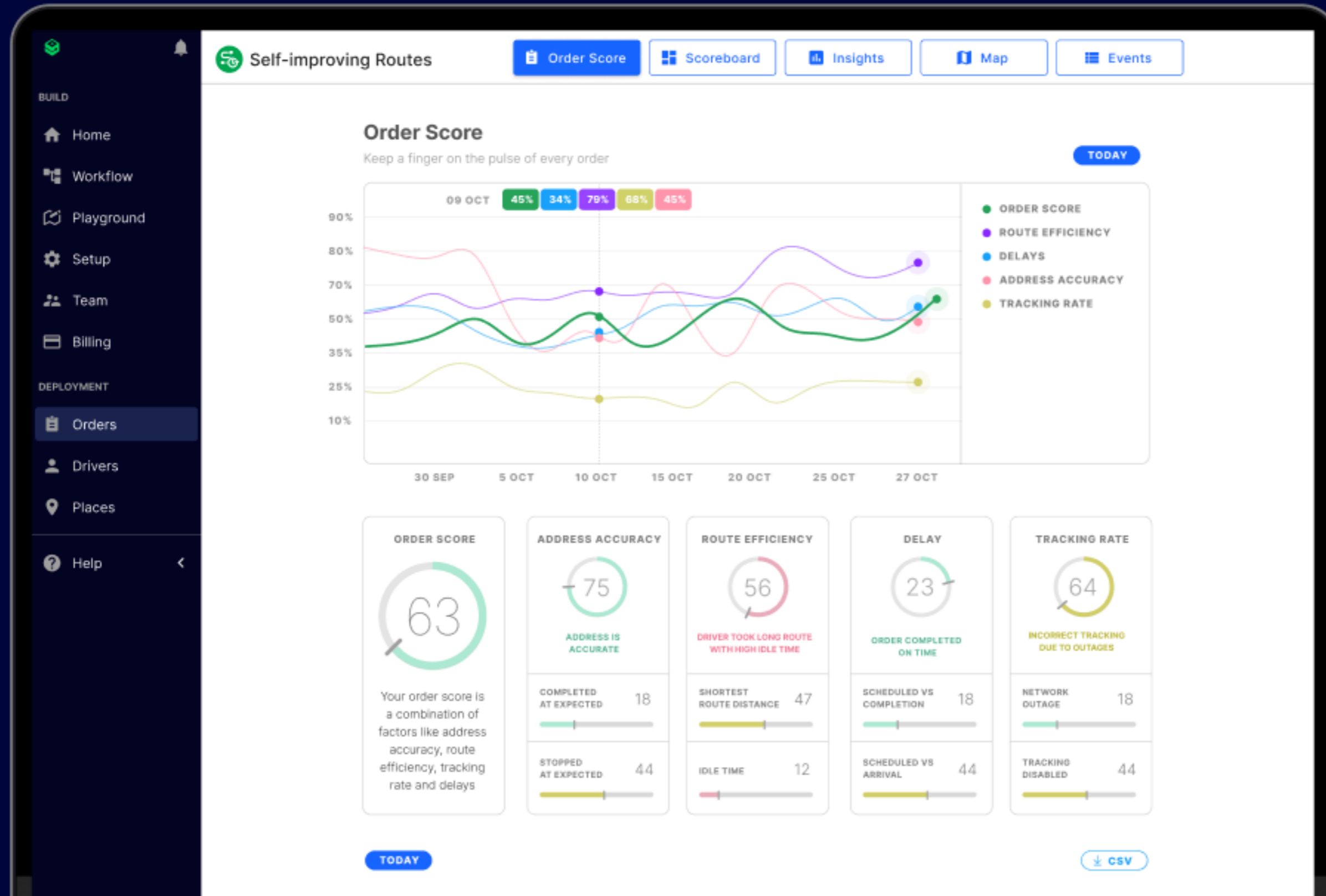


Mistakes > Errors

Allows handling of “mistakes” before they turn into “errors”



Order Score



Allows diagnosis of issues in fulfilment – be it fleet related, driver related or region related



Places

Places | Address Book | Geofences

Service Time

999 Market St.
San Francisco, CA

35min - 70min on average High Variability

105 instances

Order ID	Service Time
Order 9348835	24 min
Order Rakesh	18 min
Order Hypertrack 44	1 hr 23 min
Order 923534	39 min
Order 88 Lat	39 min

Map locations: Marina District, Telegraph Hill, Pacific Heights, Chinatown, Wikimedia Foundation, San Francisco, Mission District, Dogpatch.

Map icons: Parking, Deviation, Service Time, Outage.



A way to surface all the location intelligence we've identified from the fulfilment activities of our customers



Powers service time estimates, address correction, ETA accuracy and more

Improve a tiny bit with each order



Pool Routing



Unlocks significant efficiencies by combining scheduling and route planning and optimisation with live fleet information



The HyperTrack Platform





APPLICATIONS

BUILDER X

OPS X

MAPS X

MOBILE APPS

BIZOPS

PARTNER INTEGRATIONS

INTERFACES

API

WH

OV

CV

API

WH

OV

CV

API

WH

OV

CV

API

WH

OV

CV

API

WH

OV

API

WH

OV

FEATURES

NEARBY

SELF IMPROVING
ROUTES

ON-TIME
ROUTES

FLEX
ROUTES

GEOFENCES

GEOTAGS

INTELLIGENCE



TIMELINE
Orders at Risk



PLACES
Address Book



SERVICE TIME ESTIMATION
ETA's, Address Correction



ROUTING
Scheduled, On-Demand, Pool



TRACKING
Frequency Modulation



ORDER SCORE
Detailed Analytics

VALUES

SCALABILITY

LATENCY

AVAILABILITY

REAL-TIME

SECURITY

ACCURACY

BATTERY

PLATFORMS

ANDROID

iOS

REACT NATIVE

FLUTTER

IONIC

CORDOVA

XAMARIN



Thank You

S A U R A B H D A S