How MoveInSync One

Enabled a BFSI Client to Reduce 1600 Tons of CO_2 Emissions Annually Through a Seamless Shift to 100% EVs

MoveinSync

About the Client

- **The Client:** One of the World's Leading Financial Service Providers
- **Total No. of Employees:** 3500
- **Solution Used:** MoveInSync One

Problem Statement

The client wanted to transition their existing internal combustion engine (ICE) vehicle fleet to electric vehicles (EVs) at their largest office in India.

The Challenges

The client was already using MoveInSync One; however, the fleet consisted of only ICE vehicles—180 4-seaters, 40 6-seaters, and 40 12-seaters—completing around 23,000 trips per month.

Their operations included three peak logins and three peak logout shifts, with multiple smaller shifts throughout the day.

Since the only available commercial EVs in the market are 4-seaters, this shift to EVs would involve a substantial change in their operations.

Procuring the vehicles, training drivers (especially in compliance), and setting up the charging infrastructure for the EVs in such a short span posed significant challenges.

The Solution

We broke the challenge down into multiple parts and worked to solve them.

PART 1: FLEET IMPLEMENTATION

We created multiple scenarios to help the client make an informed decision. We modeled what the cost and complexity of operations would be if we moved between 25% to 75% of the operations to EVs at the first go and then scaled up to 100% over time. We presented four scenarios to the client -

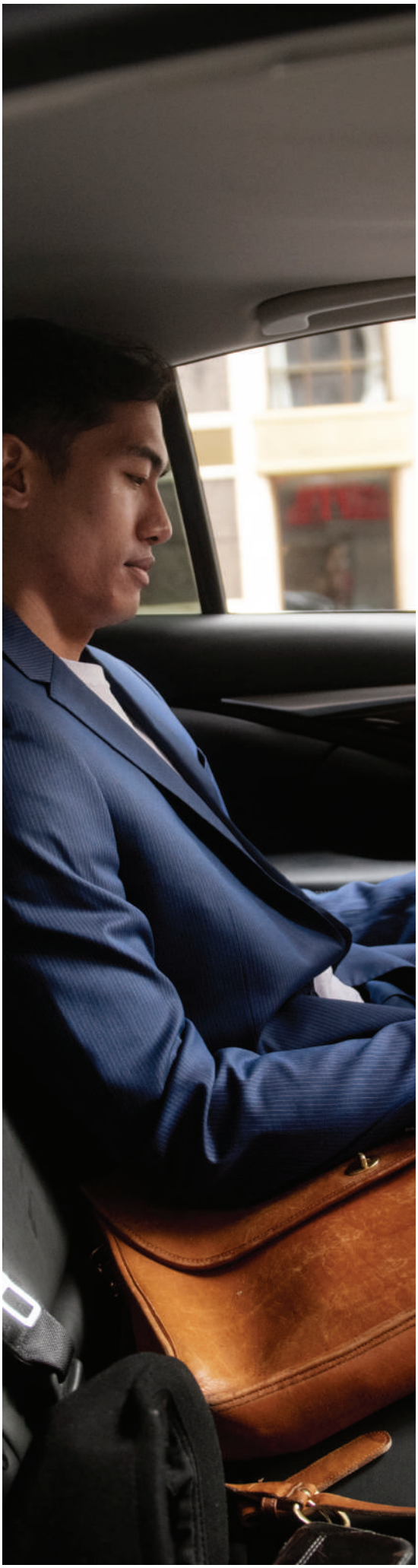
SCENARIO 01 — Replace all ICE vehicles with EVs at one go, resulting in 100% transition.

SCENARIO 02 — Replace 4-seaters with EVs, and retain 6- and 12-seaters. This would result in 75% fleet conversion to EVs.

SCENARIO 03 — Replace 50% fleet conversion of 4-seaters to EV and retain the rest of the fleet as is.

SCENARIO 04 — Replace all ICE vehicles with EV cabs and buses.

We worked with the client to determine the option that would work best for them and together, we decided to go with a phased approach. We opted for a plan to start by replacing all the 4 seaters and 50% of 6 seaters to EVs, and over the next 45 days, transition the rest of the fleet as well



PART 2: CHARGING

There were multiple options for setting up charging stations for the EVs each with its own pros and cons

Within the Tech Park

1

- Operationally straightforward, yet would require significant capital expenditure.
- Space allocation within the tech park was necessary, but a challenge.
- Limited by the state's electricity budget for the tech park.

New Dedicated Charging Hub

- Operationally straightforward, but demanded substantial capital investment.
- Would require a new electricity connection from the state electricity board.
- Uncertainty regarding the timeframe for connection setup and hub activation.

2

Scattered Citywide Charging Stations

3

- Cost-effective, but operationally challenging to manage.
- Collaboration with charging partners for strategic citywide locations.
- Included complexity of coordinating diverse commuting patterns.

Tying Up with Third-Party Hubs

- No upfront capital expenditure required, but would entail higher operational costs.
- Collaboration with third-party providers operating dedicated charging stations.
- Balancing financial considerations with increased operational intricacies.

4

We ended up going with a hybrid option of ten fast and 35 slow chargers within the technology park premises while also partnering with an external agency to use two of their charging hubs around the client's office.

PART 3: OPERATIONS PLANNING

We studied the client's employees' commute patterns to decide on a optimal mix of packages for the EVs. While the client had round the clock operations, they had 3 peak logins in a 2 hour window in the morning and 3 peak logouts in a 3 hour period in the evening. These accounted for 80% of all employees coming to and leaving the office. We onboarded some EVs on a 24 hour package model, who would cater to both the night operations as well as the peak shifts. We then onboarded some EVs on 12 hour package, which would cater to the peak shifts as well as some lean shifts during the day. For the remaining peak shift requirements, we onboarded EVs on a trip model. This ensured optimised cost of operations for the client. The EV deployment was planned in a way that they could be fast charged every night, and slow charged during the lean periods every alternate afternoon. The EVs could also be slow charged every weekend.

The Solution

STEP 01

Ultimately, we opted for a mixed fleet approach, starting off with converting all 4-seaters ICEs to EVs. We also converted 50% of the 6-seaters to EVs while keeping 12-seaters as is. We first launched 170 EVs and were able to run operations smoothly. The rest of the EVs were introduced within the next few weeks.

STEP 02

For charging, we installed 10 fast and 35 slow chargers within the technology park premises while also partnering with an external agency to use two of their charging hubs around the client's office.

STEP 03

We narrowed our list down to 11 vendors in the city of operation. We worked with them to buy the vehicles, acquire and train drivers as well, and know how to operate the EVs optimally.

The Result: Living the Green Dream

On August 15, 2023, 170 EVs were successfully launched, marking a significant milestone in the client's complete EV implementation and transformation journey. Over the six weeks, we slowly increased the number of EVs running to hit 100% EVs by the end of October.

By analyzing, planning strategically, and working closely with MoveInSync, the client successfully tackled various challenges associated with implementing EVs, paving the way for a greener and more efficient future in employee transport.

Significant Achievements

400 EVs
Running

21,000+
Trips/month

11+ Lac
Km traveled/month

140+ Tons
CO_2 emissions saved/month

Key EV Numbers -

Avg. Daily Trips of 12-Hour Package Vehicles - 3
Avg. Daily Trips of 24-Hour Package Vehicles - 6
Avg. Daily Distance by 12-Hour Package Vehicles - 165km
Avg. Daily Distance by 24-Hour Package Vehicles - 252km
On-ground Range of EVs - 210km

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