

Ingka Case Study

25 October 2019

Introduction:

Ingka Group has taken a strong stance on sustainable mobility to transform to a low carbon company and become climate positive by 2030. Our commitments include:

- By 2020, provide access to EV charging stations in all our owned buildings (where we offer parking)
- By 2025, aim for 100% of transport for customer deliveries and services to use electric vehicles or other zero-emission solutions
- By 2025, all owned/leased/shared vehicles in our fleet to be EV or other zero-emission options.
- By 2030, aim to reduce relative emissions by 50% from co-worker and customer travel to our physical touchpoints



To move even faster, Ingka has also started the transformation of five major cities to offer 100% electric or zero-emission home deliveries already by 2020. These cities, are Shanghai, Paris, Amsterdam, NYC and Los Angeles. We are happy and proud to say we have already, more than a year ahead of time, deliveries on this promise in Shanghai.

The motivation for the adoption of EVs

Our vision is to create a better everyday life for many people. Being able to breathe air that is not toxic is a pretty basic need. Therefore we must do our very best not to pollute the air in cities with our deliveries, while at the same time be able to offer our customers convenient services.

The transformation to low and zero-emission vehicles is also about mitigating huge business risk. We see cities across the world establishing and announcing low emission zones and fossil fuel bans. If we intend to offer delivery services to our customers' homes, and we do, then we need to secure access to their front doors.

The commitment to go 100% electric for home deliveries in Shanghai was announced at Global Climate action summit (GCAS) 12 September 2018. The final vehicles were implemented in December 2019 and the project deemed a success in January 2019.

Description of the initiative – 100% EV Shanghai

The decision to go 100% electric or other zero-emission for home deliveries was taken by global management at Ingka group. The goal was included in strategies for Customer fulfilment and included in the overall Ingka Sustainability strategy. As part of delivering on this target, a request went to all 30 Ingka markets on volunteering a city to serve as a pilot and transform by 2020. China was one of the first counties to rise to the challenge.

Shanghai, a Chinese megacity of more than 26 million inhabitants, was a natural choice for implementing the pilot. The Shanghai market, with three IKEA stores and one Distribution Centre, handles more than 20 000 home deliveries every month – and reducing the emission is one of how IKEA Retail China is taking responsibility for making the everyday life better for the citizens of Shanghai.

The pilot included

- 43 EVs
- 11 dedicated chargers + 300 public chargers
- Duration of battery (100kw) in full loaded: 150km/single trip. 1.5 trips per day per EV on average with 1h charging replenishment.

Customers (and the entire population of Shanghai) will benefit from both the reduction of air pollution and noise pollution.

“A transition of this magnitude shows us that the transformation to responsible transportation is happening now. Not in the future, not soon, but now. Our team in Shanghai has shown the way and proven that responsible transportation is possible. Actions speak louder than words, and I am incredibly proud of what we have achieved in Shanghai, says Angela Hultberg, head of Sustainable mobility, Ingka group:

Challenges/ barriers:

- Unstable battery range under the temperature of below zero degrees or over 35 degree
- Diverse policy approach in different cities to EV operators. (e.g. the different road access legislation in urban areas)

Approach:

Internal/external stakeholders involved

There are several stakeholders involved in this type of transformation. Internal stakeholders included both sourcing and operations for delivery services, as well as facility management and procurement for charging infrastructure. Customer fulfilment was in the lead of the project, supported by sustainability and country management.

Decision-making process

The decision was taken by country retail management and group business council for deciding on all solutions, investment and implementation plan.

Responsibilities within the organization and sharing of responsibilities with external stakeholders

A joint working group was set up for this specific implementation. It consisted of both IKEA functions such as service fulfilment operations and commercial, and external partners such as the service provider and the EV service shared the platform. All worked for a common goal and timeline.

Implementation timeline

The project kicked off on Apr 2018 and launched in Dec 2018.

Business models considered and adopted

Our service partner was fully engaged in this transition, and therefore we could continue to work through them. A creative operations model and partnership was formed up by IKEA-Service Partner-EV service shared platform to landing the EV100 in an even faster and efficient way.

Working with an EV service shared platform was new to IKEA and the service provider, but to make change happen, we discovered we have to sometimes change our ways of working.

Ownership structures considered and adopted

The electric vehicles and equipment/charging is offered by the EV service platform. Running operations is done by the logistics service partner. IKEA is the owner of sustainable home delivery services.

Vehicle types considered and adopted

The main EV type is 4.2 meters (length of chassis) closed truck with 14 CBM water filling rate loading capability.

Government incentives considered and availed

The incentive measures include the subsidy and special approval license for accessing roads in restricted areas.

Additional information

We did a training programme for drivers, having them change their driver behaviour when switching from combustion engines to electric vehicles.

By using the digital platform solution, we dynamically track and trace the energy utilization of EV, and transport network optimization, which is an added benefit. It is not all about replacing a combustion engine with an electric one, it is also about finding new and better ways of working, being more efficient and more convenient for customers.

Outcomes:

Total investment

The investment aims to secure a cost-neutral set up on running operations. It supports on the delivery density influenced by battery range per individual EV trip at the earlier period due to operational learning curve.

GHG emissions reduced/projected

There has been a reduction of around 1,000 tons CO2 annually in last-mile deliveries at Shanghai. This is not considering the future growth of deliveries in China, as we deliver more, the savings will, of course, be higher.

Associated costs

The cost components mainly consisted of EV rental costs, charging infrastructure, equipment and facility maintained, insurance and electricity consumption. Exact figures are still not complete.

Branding and company positioning

The vehicles are all branded with the IKEA logo and a sustainability message. They are thus quite visible, and it is clear they are electric, which tells our customers that we care about air pollution and their wellbeing. Being one of the biggest successes in transforming commercial fleet to electric vehicles in a very concrete way, the project has received some attention also in the media, further positioning IKEA as a responsible and sustainable company.

There is also an internal factor here, we want our co-workers to feel proud of working for IKEA, and projects like this are very well received in that aspect. Also, it is done by many co-workers, using their everyday work life to improve their environment, which we believe is very valuable.

Additional information

- Instant EV cargo taxi – a digital shared platform EV solution (base on we-chat) to convenience our customer for instantly self-booking and track trace their EV deliveries.
- EV with customized design to enable a better cargo filling rate
- Learning about how we reform the delivery network with 100EV

Key Learnings:

We have learned a lot about the importance of collaboration and changing our ways of working. A huge contributing factor to the success in China was the engagement of our service provider. Nothing can happen in isolation, and strategic partnerships are key to get committed partners.

We also teamed up with a new type of partner, and EV sharing platform. This is completely new to the Ingka business, but in doing so we cut months out of the project. The zero-emission transformation will not happen just by taking out combustion engines and replacing with combustion engines. We need to challenge our ways of working and push to change. In other markets, we are using barge deliveries and bike deliveries as part of fighting congestion, and we see route planning, consolidation of goods with other retailers and more being piloted across the Ingka world.

Next steps:

Following the success in Shanghai, cities across Ingka's 30 markets are now gearing up to reach 100% EV or zero-emission vehicles well before the deadline in 2025.

We will also use the shanghai case as a guiding light to scale up across China, targeting several major cities at first, and then reaching 100% EV deliveries all across China.

We are not only using EVs for last-mile deliveries. We are also changing the fleet of cars we own/lease. By 2025, all cars will be electric, and work to change requirements and phase out is ongoing.