### GreenWay – Med-art

**Operation of GreenWay electric vehicle fleet at a distributor of pharmaceuticals and medical materials - Med-art**

**KeyWords:**
- Implementation of low emission technologies; Innovative vehicles, vessels and equipment; Business to business (B2B) solutions, cooperation; Business models: new form of ownership, risk management; Innovative operational solutions; Transport management, fleet management.

#### Description:
GreenWay’s first client started the EV operation in May 2013 with two fully electric Vans. After six months, the 1st results could be announced. On average, 38,502km were made per vehicle in that period. It is more than any other electric vehicle in the World. The client, Med-art, who is a pharmaceuticals and medical material distributor in Slovakia, have used the vans all 106 working days without a single interruption, while achieving cost savings in comparison with running an ICE vehicle.

**Benefits:**
- Financial benefits (EV without acquisition costs; Zero administrative costs),
- Economic benefits (Stable and transparent price structure; Lower total costs; Low energy price),
- Benefits in the field of services,
- Benefits for the society (Clean and quiet ride),
- Environmental benefits

**Success Factors:**
Basic prerequisites for efficient use of EVs include repeating routes and sufficient number of km driven a day. The service is a long-term rental of EVs, including the amortisation of cars, costs of electricity necessary for battery charging at the client’s premises, the use of GreenWay’s battery swap station and quick charging station infrastructure, online monitoring, maintenance, service, insurance and all the other additional services. The full service offers individual packages so as to meet as many specific requirements of the clients as possible.

**Starting Point/Objectives/Motivation:**
The situation at Med-art before the cooperation with Greenway was typical of distribution companies using ICE-powered fleet: high fuel and maintenance costs and volatile fuel prices which both lead to high risks to profitability. The common practice before the implementation was using diesel-powered vans – a solution which is still used at the company (outside the best practice case) allowing a direct comparison of the performance. Both economic and environmental effects were important factors in the decision making proces.

**Solution**
GreenWay transforms expensive and somehow complicated technology into a convenient and affordable service. It operates a unique electric mobility system, which allows businesses to eliminate their dependency on oil prices & to decrease their environmental footprint, while incurring the same or lower level of costs, as they are currently paying for their ICE vehicles. GreenWay offers their vehicles in the category of vans up to 3.5t (converted Citroen Jumper). They are available for a comprehensive rental/service package, not for sale. Through the form of a fixed monthly fee, GreenWay are able to stabilise the client’s cash flow for several years and thus eliminate undesirable impact of the increase in crude oil prices on the client’s business. The service is not bound to a particular vehicle. The operator is entitled to replace the EV with a new model at any time. The operator guarantees the mobility service, which means that the client is entitled to a substitute vehicle in case of a failure.

**Supported Strategic Targets:**
- Increased efficiency/productivity of logistics, processes
- Increased company profitability
- Minimisation of financial risks
- Increased competitiveness
- Image
- Limited climate change
GreenWay operates a network of battery swapping stations where the customer can change the battery for a fresh one at no additional cost and within 5-7 minutes. In current technical possibilities, the battery swap station represents a tool for effective use of EVs. Without the station, the EV would have to stop after up to 200km and charge the battery, which would take dozens of minutes. Neither the stations nor the EVs have in-built batteries, which makes it possible to adapt them to the latest technologies thus reducing battery size and weight. The battery in the van takes about 1m³, located in the load space of the van. It has a separate and frameless cover, creating the elevated platform for placement of goods. The battery is put out of operation after it reaches 80% of its capacity, which should correspond to seven years of using.

Case Description (Cont.):

The technical equipment is designed to allow future modernisation and adaptation to a technical development. The battery swap stations can be disassembled within a few working days and moved to other location or client. Savings over ICE in terms of total cost of ownership are the main driver for GreenWay service adoption by Med-Art. After 6 months of using two EV's the client observed savings of 9.8%, while the CO2 emissions were reduced by 76% - taking into account the fact that the energy mix in the Slovak Republic is characterised by a very favourable ratio of low emission energy, and therefore the emissions from electricity production are lower than average for the EU.

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Main actors involved
• The main actor is GreenWay Operator a.s. which offers converted electric vans, charging and battery swapping infrastructure. Their customer is a distributor of pharmaceuticals and medical materials - Med-art

Mode of transport: road;
Supply chain element(s): distribution

More information:

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