

D3.5 Business Plans: Building on Business Opportunities

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Contents

Intro	oduction
1. bicy	Business Plan: promotion and operation of logistics services through electric cargo cles in the Low Emission Zone (LEZ) of the historic center of Quito (HCQ)
2. bicy	Business Plan: promotion and operation of logistics services through electric cargo cles in the Low Emission Zone (LEZ) of the historic center of Quito (HCQ)
3. pub	Business plan: deploying electric three wheelers for passenger use and integration into lic transport in Dar es Salaam
4. pub	Business Plan: deploying electric three wheelers for passenger use and integration into lic transport in Dar es Salaam
5. con	Business Plan: establishing an electric bike sharing system in Kigali to promote last mile nectivity
6. of e	Business Plan: Implementation of e-mobility system for development and deployment lectric vehicles – Hanoi, Vietnam
7. of e	Business Plan: Implementation of e-mobility system for development and deployment lectric vehicles – Kathmandu Nepal
8. of e	Business Plan: Implementation of e-mobility system for development and deployment lectric vehicles – Kathmandu Nepal



Introduction

This deliverable forms part of Task3.3 under WP3 and presents a collection of business plans based on the demonstration actions to be implemented in each of the partner cities. The plans highlight the key components of the business concepts in relation to the innovation actions to be implemented by local innovators/start-ups who were selected through the SOLUTIONSplus Local Innovators Call process. The Business plans are expected to lay out concrete measures to seize business opportunities that the project identifies in the cities and are aimed at sustaining the demonstration activities on a commercial basis beyond the project's lifetime. The plans identify local businesses and specific envisioned services and products relevant for the demonstration activities, value propositions, customer relationships, customer segments, key resources, channels, cost structure and revenue streams.

To summarise these components of the Business Plans into a concrete set of coherent outline, the project adopts the Business Model Canvas which is a strategic tool used for conceptualizing a business idea and aligning key business activities and their relationship to the business value proposition. The Business Model Canvas adopted is based on the template presented in table 2 below. A total of 8 business plans are outlined according to the demonstrations actions to be implemented and are based on the expertise and inputs from the local innovators.



Table 1: Business Model Canvas template

Business Model Canvas						
Key Partners	Key Activities	Value Propos	itions	Customer Relationships	Customer Segments	
Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform? MOTIVATIONS FOR PARTNERSHIPS:	What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams? CATEGORIES: Production, Problem Solving, Platform/Network	What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying?		What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they?	For whom are we creating value? Who are our most important customers? Is our customer base a Mass Market, Niche Market, Segmented, Diversified, Multi-sided Platform	
Reduction of risk and	Key Resources	CHARACTER	ISTICS:	Channels		
uncertainty, Acquisition of particular resources and activities	What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships Revenue Streams? TYPES OF RESOURCES: Physical, Intellectual (brand patents, copyrights, data), Human, Financial	 CHARACTERISTICS: Newness, Performance, Customization, "Getting the Job Done", Design, Brand/Status, Price, Cost Reduction, Risk Reduction, Accessibility, Convenience/Usability 		Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best? Which ones are most cost- efficient? How are we integrating them with customer routines?		
Cost Structure			Revenue Strea	ams		
What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive? IS YOUR BUSINESS MORE: Cost Driven (leanest cost structure, low price			For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues? TYPES: Asset sale, Usage fee, Subscription Fees, Lending/Renting/Leasing,		to pay? For what do they How would they prefer to pay? ute to overall revenues? ees, Lending/Renting/Leasing,	
value proposition, maximum au	itomation, extensive outsourcing), Value Driven	Licensing, Brokerage fees, Advertising			
(focused on value creation, pre	emium value proposition).		FIXED PRICIN	G: List Price, Product feature de	pendent, Customer segment	
SAMPLE CHARACTERISTICS	: Fixed Costs (salaries. rents. ut	ilities).	DYNAMIC PRI	CING: Negotiation (bargaining).	Yield Management. Real-time-	
Variable costs, Economies of s	cale, Economies of scope	/;	Market			



1. Business Plan: promotion and operation of logistics services through electric cargo bicycles in the Low Emission Zone (LEZ) of the historic center of Quito (HCQ)

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
 Public Partners: Metropolitan Directorate of Sustainable Transportation Modes (Secretariat of Mobility, Quito) Municipal Environmental Fund (Environmental Secretariat, Quito) International Technical Cooperation: Solutions Plus Private Partners in (QHC): Retailers and small/medium businesses Stevedores and Recyclers Hotels/Restaurants/Cafeteria s (HORECAs) Tourism Businesses Academia: Catena (San Francisco University of Quito) 	 Search and review of strategic site availability in the CHQ Cargo bike Operations Center start up Order management, handling and delivery of goods and merchandise. Operation Information collection and management Cargo bike testing Communication plan Customer service (CRM). Vehicle handling courses. Insurance / Legal / Administrative / Associativity Management 	 We facilitate access to efficient and environmentally friendly cargo vehicles, with state-of-the-art technology, appropriate for the transportation of people, goods and merchandise in urban centers. Knowledge transfer to potential beneficiaries, users and the community about the use of this technology and its benefits, for the scalability and replicability of the project 	 Depending on the timing, the following types of relationships will be established: Participation in the local development of electric logistics bicycle prototypes. Participation in the testing and training process (Operations Center). Contractual relationships and/or commercial agreements Delivery support and service availability Follow-up, loyalty and feedback 	Customers who perform logistics activities, suppliers and delivery to stores and other businesses in the HCQ: • Retailers and • small/medium businesses • Stevedores and grassroot recyclers • Hotels/Restaurants/Cafeteria s (HORECAs) • Tourism businesses



 National Polytechnic University (Ecuador) International University (Ecuador) 	 Distribution channels Information sessions/workshops Testing periods with potential users of each segment. Work and sales team training 		 Established relationships Participation in the local development of the technology (experience exchange to develop a bicycle model adapted to user's needs). 	
	 Customer relationship Familiarization with the user's line of business. Operations Center services Order management, handling and delivery of goods and merchandise. Communication plan. 	 Which one of our customer's problems are we helping to solve: High investment cost of electric cargo bike vehicles Lack of access to a resilient (efficient) technology with low traffic restrictions. Lack of facilities for last mile transportation of people, goods and merchandise in urban centers. Spatial condition complexity of public space in QHC (narrowness, narrow roads, limited road circulation space). Physical overexertion and health risks/hazard 	 How they integrated with the rest of our business model: Through active participation held by our work team and in the Operations Center, during the different stages of the project 	 Who are our most important customers? Retailers and SMEs (businesses that have or require logistic operations in the LEZ-HCQ). Stevedores and grassroot recyclers (associations of workers related to cargo transportation).



		in users who carry out logistical cycling with manual vehicles.		
 Key Suppliers Metalworking supplier Component suppliers Electric motor manufacturers CRM Supplier Communication Supplier 	 Revenue streams Determination of the fee Budgets definition 		 How costly are they? Administrative costs Public relations costs Operational costs Promotional costs 	
Key Resources Acquired From Partners	KEY RESOURCES		CHANNELS	
 Technical support for project development Financing for the construction of the first models Bicycle loan for the Operations Center start-up Public regulatory framework to promote the use of electric bicycles in ZBE - CHQ 	 Key Resources For Value Propositions Electric cargo bicycles Management model for the operation of the ZBE-CHQ Trained work team Operations Center Brand image and positioning Vehicle repair workshop Financing to scale up the model Patent development 		Through which Channels do our Customer Segments want to be reached? • Operations Center • Sales Team • Social media • Invitation to test vehicles	Is our customer base a Mass Market, Niche Market, Segmented, Diversified, Multisided Platform? A niche, segmented and diversified market for urban centers.



	 With our distribution channels? Promotional material elaboration Commercialization policy elaboration and communication 		 How are we reaching them now? Related Institutions Social networks Community beneficiaries mapping 	
	Customer relations Customer service CRM system 		 How are our Channels integrated? They are integrated into a coordination that manages and analyzes their impacts through a structure for gathering data and needs, fed by virtual platforms and B2B contact. Promotion and communication strategy 	
 Which Key Activities do partners perform? Investment and financial management for the promotion of electric mobility. Induction demand for the service. 	Revenue streamsRUC (tax registry)Bank accountsCollection methods	 Which customer needs are we satisfying? Access to efficient, clean and sustainable technology for last mile transportation of people, goods 	 Which ones work best? Which ones are most cost-efficient? Linked institutions and references from other users. Test center Social networks (marketing campaigns) 	

	solution
 Promotion and use of the service provided by the vehicles. Generation of regulations and public policy for the proper functioning of the business model. Commercial activities in the ZBE - CHQ Research on logistics patterns Infrastructure availability Promotion of active mobility, road safety education 	 and merchandise. Optimization of resources in the logistics of moving goods and merchandise. Brand presence in the ZBE-CHQ. Health risk/hazard (overexertion) reduction associated to manual bicycle logistics usage.
COST STRUCTURE	REVENUE STREAMS
COST STRUCTURE What are the most important costs inherent in our business model? • Design and construction of the electric cargo bike prototypes • Electric motors for electric cargo bikes • Costs related to the implementation and maintenance of the Operations Center and Showroom (rent, electricity, internet, telephony) • Human resources • CRM system • Dissemination strategy and brand positioning	REVENUE STREAMS For what value are our customers really willing to pay? • Provision of goods moving services • Vehicle rental. • Advertising on vehicles • Training for the use of vehicles • Accompaniment for the implementation of an electric logistics strategy.



 Which Key Resources are most expensive? Financing to scale the model Design and construction of Electric Cargo Bike prototypes Electric motors for cargo bikes Trained team Costs related to the implementation and maintenance of the Operations Center and Showroom (rent, electricity, internet, telephony). 	How are they currently paying?Directly to the service providerThrough the intermediary
	How would they prefer to pay?By contract to a permanent supplierOn Demand
 Which Key Activities are most expensive? Set-up and start-up of the Operations Center Order management, handling and delivery of goods and merchandise. Communication plan. Accompanied testing of Cargo Bikes. Vehicle handling courses. Customer Service (CRM). 	 How much does each Revenue Stream contribute to overall revenues? (estimated percentage distribution): 20% Provision of goods moving service. 20% Vehicle rental. 20% Advertising on vehicles 20% Training in the use of vehicles 20% Accompaniment for the implementation of an electric logistics strategy.



2. Business Plan: promotion and operation of logistics services through electric cargo bicycles in the Low Emission Zone (LEZ) of the historic center of Quito (HCQ)

Key Partners	Key Activities	Value Propos	itions	Customer Relationships	Customer Segments
 Bicycle Conversion Kit Supplier Lot Module Supplier Bicycle Shop / Mechanical Component Supplier Blacksmith Paint Shop Old Bicycle Frame Suppliers CNC Shop (Boxes) 	 Bicycle Design And Customization Prototype Manufacture Source Components Marketing Sales Support Key Resources Capital To Manufacture & Import Components Deposit Workshop Desing And Manufacturing Know-How 	Place Electric (Long John St in the Uruguay Focus On: • Innovatior • Efficiency • Eco Frien	Freight Bikes yle) available /an market. n dly	 Vehicle Sale Leasing Custom Design Channels Online Store Marketplace (Mercadolibre) 	 Companies that do not outsource their deliveries Companies providing last mile logistics services
Cost Structure		Revenue Stre	ams		
Old Bicycle Frames, Blacksmi And Electrical Components, As Operating Costs (Tax, Insurand	th Services, Painting, Purchase (ssembly Of Components, Market ce).	Of Mechanical ing And Sales.	Sales / Leasing Rental Contrac	g. cts with payment per Km usage.	



3. Business plan: deploying electric three wheelers for passenger use and integration into public transport in Dar es Salaam

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
 External company for acquisition of Transaxle motors and Lithium-ion Batteries. Dar-es-Salaam Institute of Technology for the use of workshop and machinery. Government of Tanzania for offering technical support UNHABITAT and SOLUTIONSplus for project collaboration Local suppliers for raw materials supplies. Transport sector players in Dar es Salaam Academicians in Dar es Salaam Financing institutions, banks and credit facilities Potential Investors 	 Fabrication of TWO 6 seater electric 3-wheeler Buying and Retrofitting of ONE existing fossil fuel 3- wheeler. Establishing one charging station in Dar es salaam. Developing a web based application aimed at fleet management and remote diagnostics of the products. carrying out piloting the projects programs Capacity building trainings for staff. carrying out feasibility studies in dare salaam. Preparing business plan. Selling finished products. Leasing out E-Tuk-tuks. 	 The Electric 3-wheelers will be fitted with 3KW 48V transaxle DC Motors powered by a 7KwH Lithium-ion Batteries which will enable them to cover a mileage of 70km before recharge. The electric 3-wheelers will have a spacious 6 sitting capacity with a 1.5 ton loading capacity. The fleet management system will run remote component diagnostics of all 3-wheelers while feeding live data on our database. Retrofitted tuk-tuks will improve on the fossil fuel tuk-tuks in Dar es Salaam. Electric tuk-tuks as opposed to fossil fuel tuk- tuks reduces costs of 	 Personalised customer experiences. Customer interaction and behaviour tracking. Tailored and target marketing. Developing value-added content in respect to benefits of electric mobility compared to fossil fuel. User feedback for our products and services improvement. Asset financing through banks After sale services to our clients 	 Local Transport Organisations (SACCO's). Dar es Salaam Transport Ministry. Individual investors interested in e-mobility transport. Individualised tuk-tuks taxi operators. City vendors. Small scale farmers. Small scale farmers. Small scale city traders Factories and industries for small scale logistics. Construction industry Hospitality industry for fresh vegetables and fruits logistics
	I NEV RESOURCES		Channels	



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 Skiller Kenya in Ele and F Engin Finan acquis and to Finan Plant equip EVs K Raw r Media Credil Comp Comp rghts Comp 	d personnel from a and Dar es salaam ctrical, Mechanical fabrication leering. ces to facilitate sition of equipment bols. cial resources machineries and ment. Kits from EU. materials. a outlets for marketing. ble Social platforms. bany Websites. bany IPs and Copy bany Workshops. bany Offices.	maintenanc income leve • Reduced po carbon emis	e hence higher	 Usage of print Media both local and international. Digital media, local and international. Social media Platforms. Conventions with local transport organisations in conjunction with Dar es salaam institute of technology. Organised tuk-tuks saccos. Partnership with car dealers. Asset financing through local banks. 	
Cost Structure Labor costs Cost of raw materials & acquiring n Health and safety insurance Hiring costs of workshop Travelling & Accommodation costs. Licensing fees Imports fees Communication expenses 	new fossil fuel tuk-tuk	10% 65% 02% 06% 10% 03% 04% 02%	Revenue Stre • Sale of finishe • sale of parts a • Leasing of tul • Sale of Regen • Revenue from companies lik • Usage fee of • Subscription f • Charging fee • Income from	eams ed tuktuks. and components. k-tuks. herative Motion Recharge System n advertisements using our brand the coca cola. the 3-wheelers by the Dar es sa fees paid for the usage of fleet m from our charging stations. retrofitting of existing fossil fuel to	m (RMRS) Franchise. ded tuk-tuks by major laam Institute of Technology lanagement system. uk-tuks.



4. Business Plan: deploying electric three wheelers for passenger use and integration into public transport in Dar es Salaam

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
 Collaborating local companies Dar Rapid Transit (DART) Local Government Authority (Ubungo Municipal Council) Tanzania Electric Supply Company (TANESCO) Suppliers of e 3 wheelers parts/ solar equipment and accessories. 	 Undertake technology transfer of developing electric charging stations, electric three wheelers assembling and retrofitting e-3wheelers. Undertake technical design of e-mobility pilot system in the city Facilitate importation of equipment and accessories 3 wheelers and charging stations Develop facilities for assembling and retrofitting. Develop 3 charging stations and swapping facilities. Assemble 10 electric wheelers. Promotion and marketing of the services. 	 Low fare and fees in transportation of passengers and cargo Innovative, convenient and user friendly transportation services (less pollution of gas and noise) Low operation (recharging) and maintenance costs Saving money and spend locally Use of domestically produced energy (electricity) 	 High quality services Reliable after sales services Personalised and tailored supports for each customer on demand. 	End users which include; • Passengers • Cargo transporters
	 Key Resources Assembling and retrofitting workshop. Charging and swapping facility Skilled personnel. Integrated ICT software for fleet/ charging management. Three wheelers parts/ accessories 		 Channels Social media - Instagram, Facebook. Company website Radio and TVs Printouts i.e. leaflets/ posters and brochures 	



Solar PV systems & Electricity from grid				
Cost Structure		Revenue Stre	ams	
 Personnel costs Procuring and maintaining the ICT systems software Procuring, importing the e 3 wheelers and charging statis Installation of charging stations. Maintaining assembling workshops and charging station 	ons components. s	 Battery char Battery swa Leasing the Customer se Selling e-3 v Retrofitting v 	ging fees pping fees e-3 wheelers ervices (repair, maintenance) wheelers spares parts. wheelers.	



5. Business Plan: establishing an electric bike sharing system in Kigali to promote last mile connectivity

Key Partners	Key Activities	Value Propo	sitions	Customer Relationships	Customer Segments
 UN-Habitat SOLUTIONSplus ITDP Government of Rwanda Ministry of Environment Ministry of Infrastructure City of Kigali Mobile payment providers (Financial, Technical, Advisory, Governmental) 	 PRE-IMPLEMENTATION Documentations, consultations, procurement, Public enlightenment IMPLEMENTATION Mobile App activation, demo operations, data collection, riding clinic, periodic reporting, evaluation POST-IMPLEMENTATION Post implementation review, final report Key Resources Personnel (technical, operations) Advisory Financial (Grant) Infrastructure (Dock, Charging, Locks) 	 Affordable mile transp Convenient mobility Reduced ci Reduced lo Pollution Less negat environmer Improveme Health Green mobility 	first & last ortation t Urban micro- ongestion ocal air ive ntal impact ant to public ility	 Attending to inquiries at dock stations Digital & Social media Feedbacks Public Relations Electronic media Public forums – e.g. Car free days Channels Mobile App 	 Students Tourists (foreign & local) Workers Corporate entities Shoppers – especially at city centre/CBD Kigali residents and visitors
Cost Structure			Revenue Stre	eams	
 Cost of product development Cost of operations Maintenance cost Government taxes and fees 		 Rental fees Annual Sub Corporate e Branding an 	s (Pass - hourly , daily, weekly et oscription (Bronze, Silver , Gold/l events nd advertisement from corporate	c) Premium) e businesses	



6. Business Plan: Implementation of e-mobility system for development and deployment of electric vehicles – Hanoi, Vietnam

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
 City governments: permission to launch in public road & stations, rules and regulations toward last mile system, policy support Electric Vehicles Manufacturers: Vehicles OEM IOT Manufacturers: IOT OEM, Save costs on producing a large number of IOT devices Sale & Marketing: Marketing agency, ads provider Distribution channels: restaurants cafes four 	 Development of e-bike sharing system: A booking application, backend management, Vehicles solutions (electric bikes, mechanical bikes), IOT circuit board Operations of vehicle fleets Maintenance of fleet Redistribution Customer Service Sales & marketing 	 End users (B2C): a ride with our vehicles Convenience Accessibility Cut waiting time Transportation cost reduction City governments & property developers (B2B): system purchase Newness Cost reduction Brand/status as environment friendly Provide transportation data 	 End users (B2C): Self-service: Booking on application Communities: riders Customer service: personal assistance B2B: Dedicated personal assistance: customer representative Long-term 	 B2C: End users Riders Commuters B2B: City governments Property Developers Smart City Builder Resorts owners University campus/Industrial park We focus on Vietnam market
agents,	Key Resources		Channels	
 Universities: Research insights & recommendation 	 Physical: Materials for vehicles & IOT, computers to write codes, Testing equipment Intellectual: Brand patents, data Human: Developers, Engineers, Sales, Operators, Customer Service 		 End users (B2C): Signage at stations, online & offline advertisement, distribution network (restaurants, cafes, tour agents,etc.) Property Developers & City Government (B2B): via network, 	



	Financial: Investment			introductions and recommendations		
Cost Structure	Cost Structure			Revenue Streams		
 Service Side (B2C): Fixed cost: Officia Variable cost: Depredistribution cost Sale side (B2B): Fixed cost: salary salary Variable cost: Ser 	al rental cost, station rental cost, s preciation cost of vehicles, Mainte , electricity cost, SMS cost, Mark , research & development cost, c rver cost, cost of equipment, mair	salary enance cost, eting cost office rental cost, ntenance cost	 Er pa Pr th 	nd users: Service fee i.e. pay per ass, annual pass for rides on the	ride, subscription for monthly vehicles sa/credit card, wallet as – subscription model or pay nment: Product sale i.e. selling nent at their areas is	



7. Business Plan: Implementation of e-mobility system for development and deployment of electric vehicles – Kathmandu Nepal

Key Partners	Key Activities	Value Propositions	Customer Relations	Customer Segments
 Technical Partner Local private company Solutionsplus Academic partner Kathmandu University Public Partners Municipalities Waste collecting private vendors Cargo sevice agencies Key suppliers OEMs from China for Batteries Dashboard system Electronic lights Local hardwares for Metals, sheet metals local fiber materials Valeo powertrains Paint shops Key Activities we aquire from the Partners Technical assistance for overall project like system engineering and 3D modelling and analysis Financing for the prototype development Tetsing of the vehicle 	 Key activities that our value propositions require: Operation of passenger e-3/4 wheelers in the tertiary routes of Kathmandu Valley Cargo Service for different good delivering organizations. Managing waste through collection of the waste and transportation. Insurance / Legal (logistics)/ Administrative /project Management Distribution channel: Showrooms, Test rides, Bookings, Workshops Customer relationship: Communication resources Operation centre services After sales service Order management, handling and delivery of goods 	 Value we deliver to the customer: Access to efficient transportation of the passengers, Transportation of cargo goods and waste through green mobility. Replication and scaling of the project Customer's problems that we are helping to solve: High investment on similar kind of imported vehicles. Lack of mobility access to tertiary routes of the Kathmandu Valley. Efficient waste collection and management Easy and quick delivery of the goods within the narrow streets of Kathmandu Bundles of products and services that we are offering to each Customer Segment: 	 Depending on the timeline, the following types of relationships will be established: Customer community development, Customer loyalty program and After sales service and support Customers' active consultation and participation in the different phases of the project development Associated costs Operation cost, marketing cost, and administrative cost 	Customer Value creation: Local public transportation users and drivers. Local cargo goods delivering service agencies Municipalities and local waste collecting organizations Most important customers: Public transportation organizations Municipality section working on waste management Recycling agencies Customer base: A mass market, segmented and Diversified market for urban centers.



Key activities that Partners	Budget estimations.	Low cost public three		~~~~~
performs	Key resources	wheeler compared to one	Channels	
 Investment and financial management for the promotion of electric mobility. Promotion of the mobility Design and system engineering Regulation and policy on cargo goods and waste managing transportations. 	 key resources that our value propositions requires: Electric mobility promotion Well trained technicians Technical assisting partners Branding Our distribution channels: Digital promotion Strong business policy Customer relation: Customer care center Revenue streams: Bank accounts Collection methods 	 available in the market Waste management through green mobility Ease of transporting cargo goods Satisfaction of the customer needs: Efficient and clean last mile solutions with comfort and safety Efficient delivery services Efficient collection of the waste Sight seeing service 	 Channels that our Customer Segments want to be reached: Official showrooms Digital platforms like social media Sales team Project demonstration and test ride facility We will reach our customer segment through social networks, and related mediums. Most cost-efficient channeling: Test center Social networks Integrating them with customer routines: Websites and social media 	
Cost structure			Revenue Streams	
 Important cost inherent. Design, system engineering a Batteries for the 7 units (6 e-3) Human resources Operational cost (showrooms) Business strategy and brandii Most expensive key resources Design, system engineering a Energy resource –batteries Traing the teams Testing the vehicles Costs related to the implement Showroom (rent, electricity, intervention) 	and product development 3 wheelers and 1 e-4 wheeler) 5, workshops) ng and product development ntation and maintenance of the o nternet, telephone).	Operations Center and	 Values that customers are willing to Public transportation service Cargo moving service Advertisement on ther vehi Currently valued payed for public tr They are currently paying o (drivers) Payment method : Direct cash Revenue Stream contribution to ov 55% on public transportation 20% on cargo good service 15% on waste collection 10% on vehicle rental for details 	o pay: >e icle *ansportation: directly to service agents *erall revenues: on e lifferent uses



8. Business Plan: Implementation of e-mobility system for development and deployment of electric vehicles – Kathmandu Nepal

Key Partners	Key Activities	Value Propositions	Customer Relations	Customer Segments
 Technical Partner Local private company Solutionsplus Academic partner Kathmandu University Thapathali engineering college, Institute of Engineering Public Partners Municipalities Waste collecting private vendors Local cargo sevice agencies Key suppliers OEMs from local vendors for Drive system Dashboard system Electronic lights Local fiber materials local fiber materials Paint shops Key Activities we acquire from the Partners Technical assistance for overall project like system engineering and 3D modelling and analysis	 key activities that our value propositions require: Remodelling the old safa tempos for three different application, use of revolving fund for the project replication and trainings Renting vehicles for Cargo Service to delivery organizations. Managing waste through collection of the waste and transportation in coordination with municipalities and local recyling agencies Insurance / Legal (logistics)/ Administrative /project Management Distribution channel: Showrooms, Test rides, Bookings, Workshops 	 Value we deliver to the customer: Access to efficient transportation of the passengers/ tourists, Cargo goods and Waste through green mobility. Scaling of the project in the local market Customer's problems that we are helping to solve: Increase access to mobility in the Kathmandu Valley. Waste management Delivery services Technical trainings to technicians and the drivers Bundles of products and services that we are offering to each Customer Segment: Remodeling of old Safa Tempos (e-3 wheeler for public transportation) Waste collection and management through green mobility Ease in delivery services 	 The following types of relationships will be established: Customer loyalty program Maintenance service and support Integration with the rest of our Business model: Through the active participation with the project team during the different stages of the project Associated costs Operation cost, marketing cost, and admisinistrative cost 	Customer Value creation: Local public transportation users and drivers. Local cargo goods delivering service agencies Municiapalities and local waste collecting organizations Most important customers: Public transportation organizations Municipality section working on waste management Recycling agencies Customer base: A niche market, segmented and Diversified market for urban centers.



 Financing for the prototype development Tetsing of the vehicle Key activities that Partners performs Investment and financial management for the promotion of electric mobility. Promotion of the mobility Design and system engineering Regulation and policy on cargo goods and waste managing transportations. 	 Operation centre services After sales service Order management, handling and delivery of goods Revenue Stream: Budget estimations. Key resources key resources that our value propositions requires: Electric mobility promotion Well-trained technicians Partners for technical assistance Branding Our distribution channels: Promotion using internet Agreesive business policy Customer relation: Customer care center Revenue streams: Bank accounts Collection methods 	 Satisfaction of the customer needs: Last mile solution for public mobility via green energy, zero emission vehicle for cargo goods and waste collection transportation New life to old Safa Tempo (mostly affected by COVID for the public transportation services) which creates revenue for owner/ drivers through alternate usage and modular concept 	Channels Channels that our Customer Segments want to be reached: Digital platforms like social media Workshop Project demonstration and test ride facility We will reach our customer segment through social networks, and related mediums. Most cost-efficient channeling: Workshop Social networks Channel integration: Social networking sites seems more beneficial for our channeling.	
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Cost structure	Revenue Streams
Important cost inherent.	Values that customers are willing to pay:
Design, system engineering and product development Battorios for the 3 units	Public transportation service
 Human resources 	Currently valued payed for public transportation:
Operational cost (showrooms, workshops)	They are currently paying directly to service agents
Business strategy and branding	(drivers)
Most expensive key resources	Payment method:
Design, system engineering and product development	Direct cash
Energy resource –batteries	Revenue Stream contribution to overall revenues:
Training the teams	60% on public transportation
Testing the vehicles	20% on cargo good service
Costs related to the implementation and maintenance of the Operations Center and	10% on waste collection
Showroom (rent, electricity, internet, telephone).	10% on vehicle rental for different uses.