



Information of Potential Innovative Businesses

Business 1: Circular Product Services

Pain points: Maintenance burden, Resource underutilization, End-of-Life management

Target group:

- All clients in contact with EGCO Group's innovative businesses
- Other clients with expired equipment

Description

- Providing service, not equipment i.e. clean & reliable electricity, backup storage, electricity usage information, charging facility
- Equipment's End-of-Life handling
- Enabling prosumer services

Example:

- Medium/long-term equipment service
- Home/factory/building renewable supply and storage
- Usage information report via mobile application
- Recycling of solar PV and other equipment
- Battery end-of-life management

Requirements/ Development focus:

- Knowledge in high-value added recycling and know-how in equipment retrieval system

Partnership:

- Equipment manufacturers to influence product design & recycling

- 7 AFFORDABLE AND CLEAN ENERGY
- 8 DECENT WORK AND ECONOMIC GROWTH
- 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
- 13 CLIMATE ACTION

Products in Customer's view



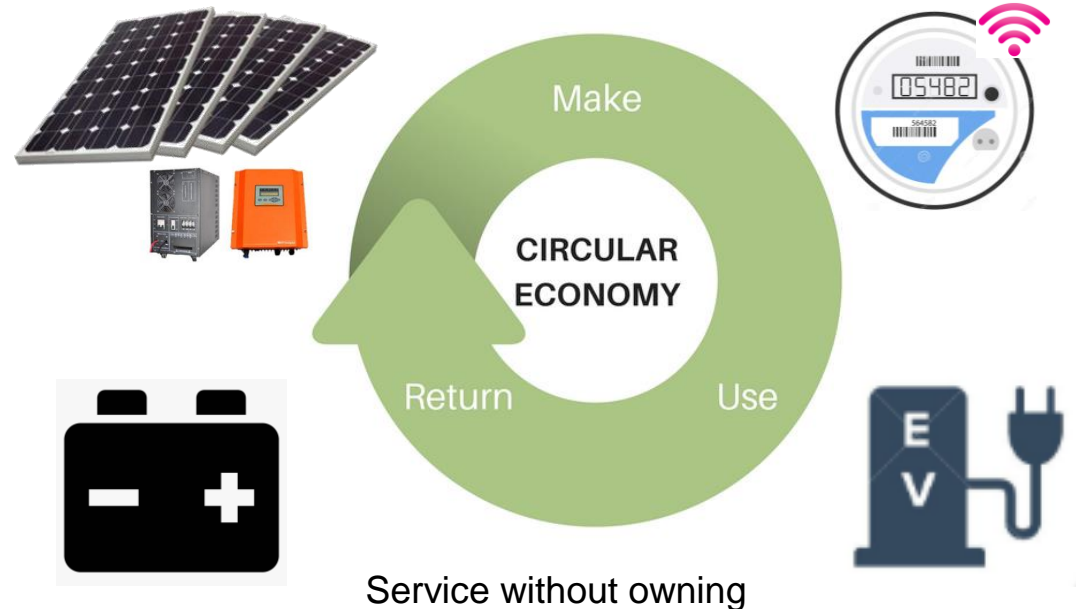
Hardware



Software



Humanware



Business 2: Comprehensive Outsource Service for SPP/VSP

Pain points: The lack of competency in electricity generation business

Target group:

- SPP/VSP owner
- Off-grid electricity generation i.e. factory

Description

- Comprehensive outsource service to facilitate SPP/VSP in all processes from project development through operation and trading
- Offering standardized, package-based service

Example:

- Regulatory and technical advisory
- Market searching, location siting
- Bidding & contract management
- Supply chain management
- Management system implementation
- Power plant operation and maintenance
- (Future) Peer-to-peer trading

Requirements/ Development focus:

- Human resource development scheme
- Workforce with flexible skills in response to market

Partnership:

- PEA, MEA, EGAT
- Construction contractor
- Local load i.e. municipality, industrial estate



Products in Customer's view



Hardware



Software



Humanware

Business 3: Energy Management Service

Pain points: The lack of competency and infrastructure in energy management

Target group:

- Industrial estate & Factory
- Emerging Smart cities including e-Bus, Tram, Port, Airport
- Housing estate, Condo
- Shopping malls, hospitals
- University
- Other large building

Description

- Assist client in energy efficiency improvement.
- Provide access to energy that is cleaner, cheaper and reliable.
- Enable energy transformation to smart grid, microgrid and large scale storage.

Example:

- Energy efficiency improvement through digital management system
- Access to distributed generation of renewable energy
- Load-supply management service
- Demand side response opportunity for client
- Mobile Application for users
- Support in public transport electrification
- (Future) Peer-to-peer trading

Products in Customer's view



Hardware



Software



Humanware

Requirements/ Development focus:

- Human resource development scheme
- Workforce with flexible skills in response to market
- IT infrastructure

Partnerships:

- Smart City, Industrial estate, Property development company, University, Transportation company



Business 4: Green Mobility

Pain points: Range anxiety, Accessibility to energy, and Long charging time

Target group:

- Individual EV owners (Cars, Motorbike)
- Delivery service provider
- Public & Private parking
- Home owner

2. Swap-and-Go

- Swappable battery system in urban area that allows EV users to travel with clean energy which requires virtually no charging time
- Promote Decarbonization of delivery industry
- Battery stations exist throughout urban area to eliminate range anxiety
- Mobile Application for users to locate nearby battery stations and check their status

Description:

1. Stationary Smart Charging System

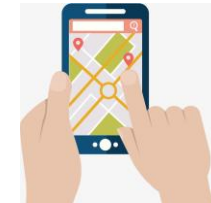
- Installation of charging stations in large buildings
- Mobile Application for users to locate nearby charging stations
- Accelerate expansion of EV and charging network
- Furthermore, it might also be able to provide Vehicle to Grid (V2G) electricity supply in the future as well.

Requirements/ Development focus:

- Political support and financial incentive for EV
- Technological advancement of battery and charging system
- Co-development of compatible EV and accessibility of charging points

Partnership:

- Battery & EV manufacturer
- Property/ housing development company
- Urban parking space i.e. shopping malls, universities



Products in Customer's view



Hardware

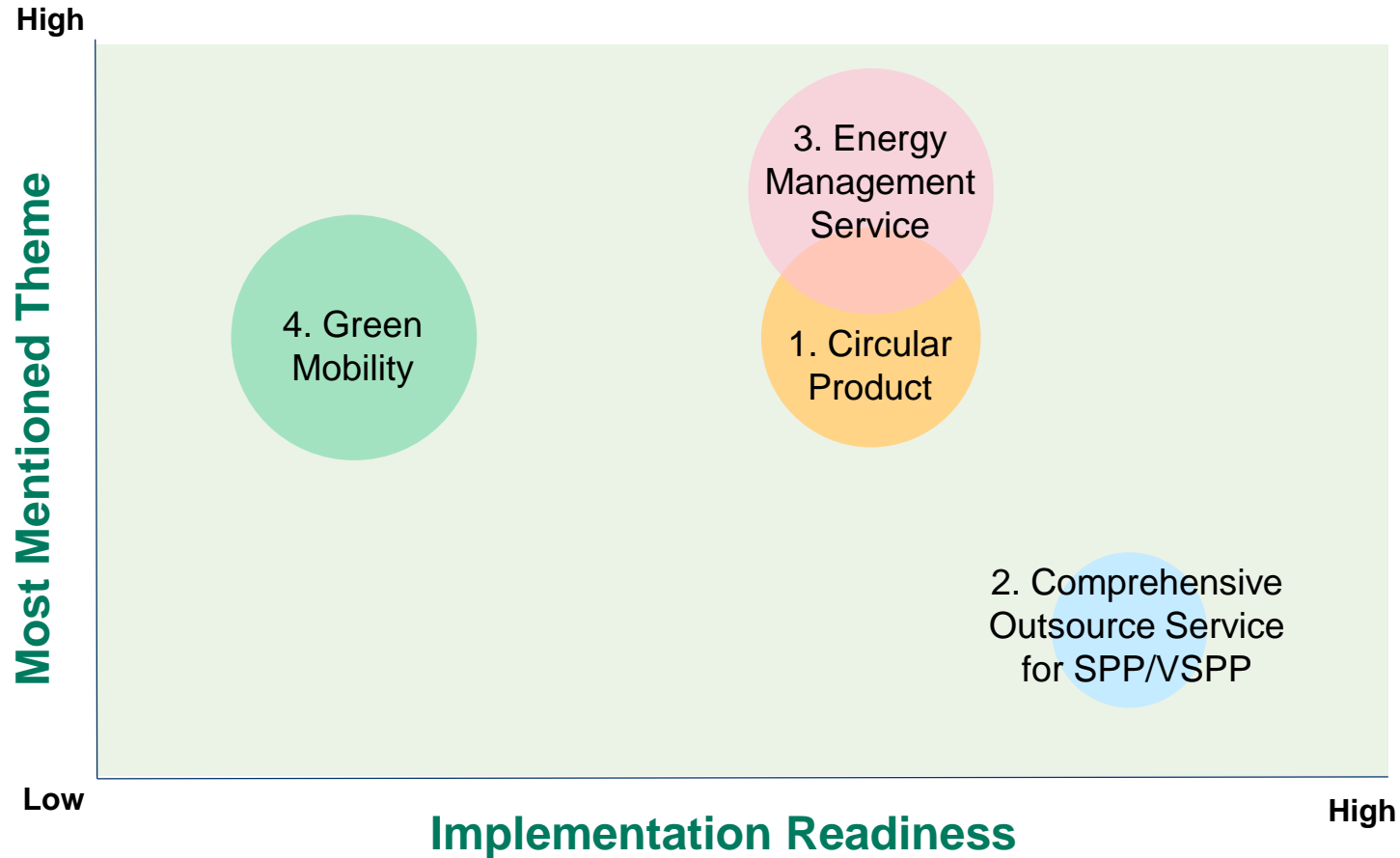


Software



Humanware

Innovative Business Analysis



Remark: *The size of the circle represents relative sustainability impact level*

Key Findings

- Highest readiness was identified for **comprehensive outsource service for SPP/VSP** due to EGCO Group’s competency and regulatory support.
- **Energy Management Service** is also another attractive business opportunity the should be developed hand-in-hand with **Circular Product Services**. This will also result in relative high sustainability impact.
- While **Green Mobility** business is highly mentioned among peers, the booming of electric vehicles (both cars, motorbike, etc.) might still take some time to realize in the region.

EGCO Group's Climate Opportunities

As a result of climate risks and opportunities workshop, three major opportunities for EGCO Group are;

Political Support in Renewable Electricity Generation

- EGCO Group may expand renewable energy business in synchronization with national and international policy direction

Increasing Demand in Energy Storage System

- Increasing demand lead to an opportunity to gain revenue
- Energy Storage System may reduce cost and present a new business opportunity for EGCO Group
- Business opportunity to in solar cell end-of-life management

Increasing Demand in Renewable Energy

- Opportunity to extend renewable electricity generation contract
- Growing consumer's preference to purchase renewable electricity
- Business opportunity to develop energy management service

