HSLU Hochschule Luzern

Lucern University of Applied Sciences and Arts
Hochschule Luzern - Technik & Architektur

Greenhub
Innosuisse Flagship

Bachelor-Thesis Wirtschaftsinenieur | Innovation

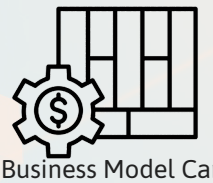
Business Cases and Target Costing for Green Fuels - Germán Cerdá Checa

Purpose

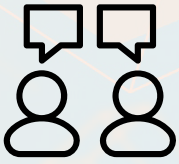
The motivation behind this project lies in the urgency to transition towards a more sustainable energy future. Traditional fuel sources contribute significantly to environmental degradation and climate change, necessitating a shift towards cleaner and renewable alternatives. By exploring the business cases and target costing for the technologies under GREENHUB.

The objective of this BAT project is the definition and identification of Business Cases for two different GREENHUB technologies (production of green ammonia and green hydrogen) based on the assumed performance of the technologies using the Business Model Canvas (Osterwalder) and the Value Proposition Canvas. These Business Cases will be verified based on simulation and optimization of the plant operation using the flexible operating options of the different technologies.

Applied skills


Business Model Canvas


Value Proposition Canvas


Interview

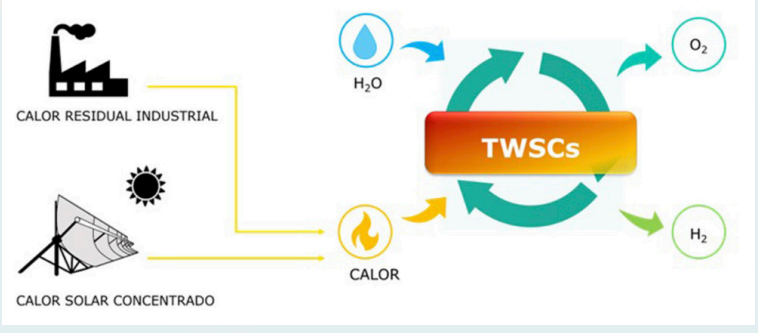

Target cost caluclation

The Business Model Canvas is a strategic management tool for new business development. we also used the Value Pproposition Canvas, a strategic tool that helps companies to better understand their customers' needs and to design products and services that perfectly meet those needs. Finally some expert interview were made and a target cost calculation with a phyton programme to study the economic impact for the diferent scerarios

Result

The result of this BAT is a comprehensive vision of the potential for implementing a green hydrogen and ammonia production business, as well as its barriers and challenges. This includes everything from the business concept to the costs and benefits it could have in different scenarios.

Diagram of Hydrogen production from waste incineration and PV panels



Value proposition Canvas template