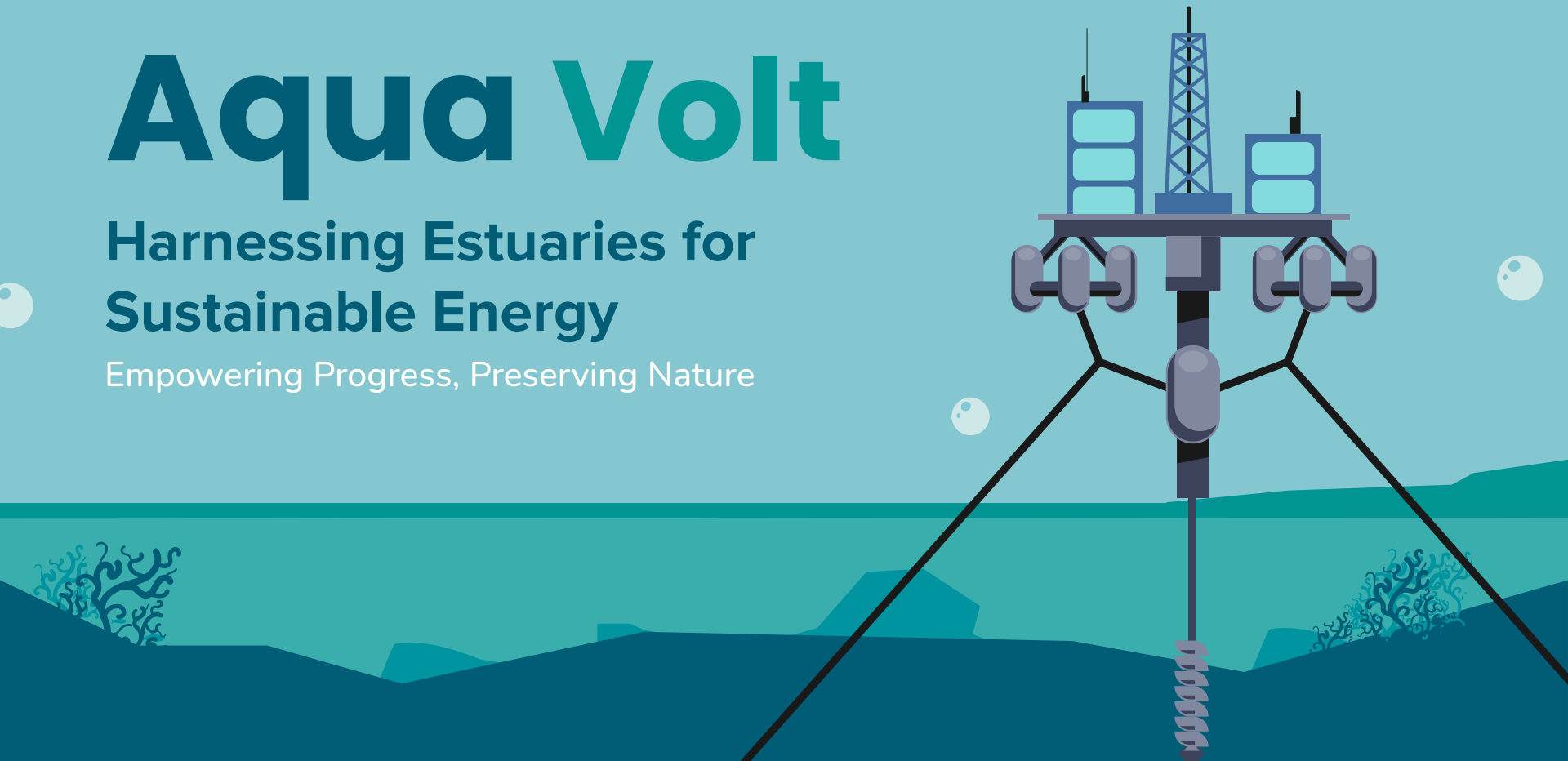


Aqua Volt

Harnessing Estuaries for Sustainable Energy

Empowering Progress, Preserving Nature



Domain : Renewable Energy

Supporting SDG goals

7 AFFORDABLE AND
CLEAN ENERGY



6 CLEAN WATER
AND SANITATION



8 DECENT WORK AND
ECONOMIC GROWTH

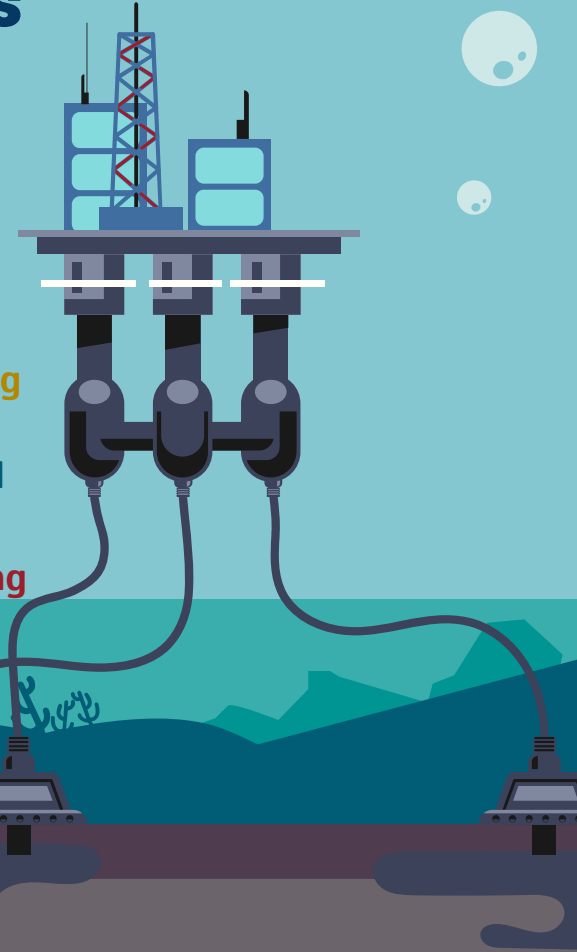


SAP Indicators

SDG 7 - SAP070B – Expand and Upgrade energy services for developing countries

SDG 6 - SAP0603 – Improve Water Quality, waste water treatment and safe reuse

SDG 8 - SAP0806 – Promote Youth Employment, Education and Training



Objective:

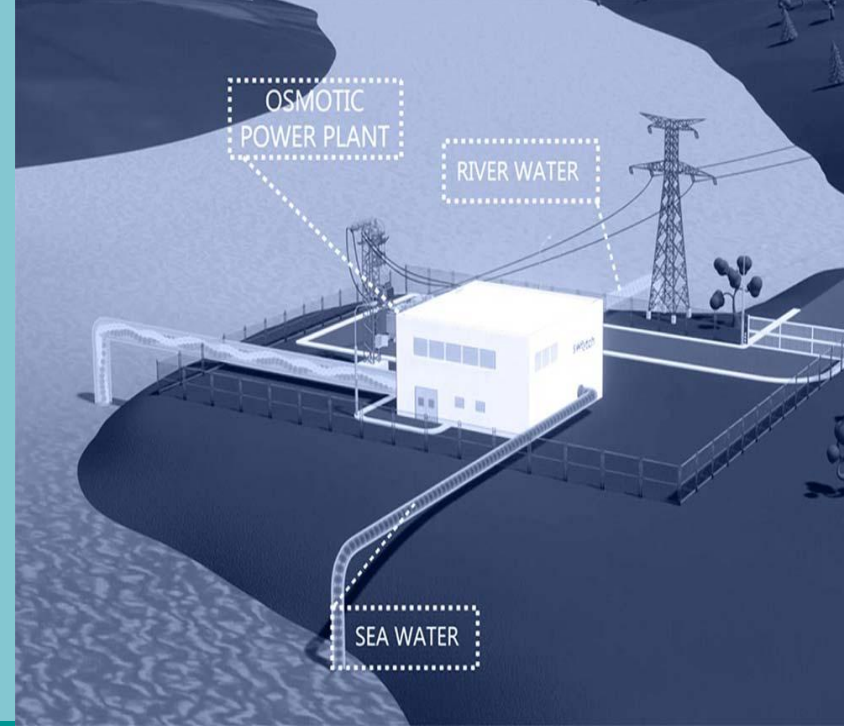
Harnessing the Potential of Estuaries and Rivers for Sustainable Power

The primary objective of AquaVolt is to pioneer the efficient utilization of osmotic power as a renewable energy source, specifically focusing on estuaries and river systems. By leveraging advanced nanotechnology and artificial intelligence (AI), AquaVolt aims to optimize energy generation from the natural phenomenon of osmosis. Through innovative design and implementation strategies, AquaVolt seeks to establish a scalable and eco-friendly solution for generating electricity, contributing to the global transition towards sustainable energy.



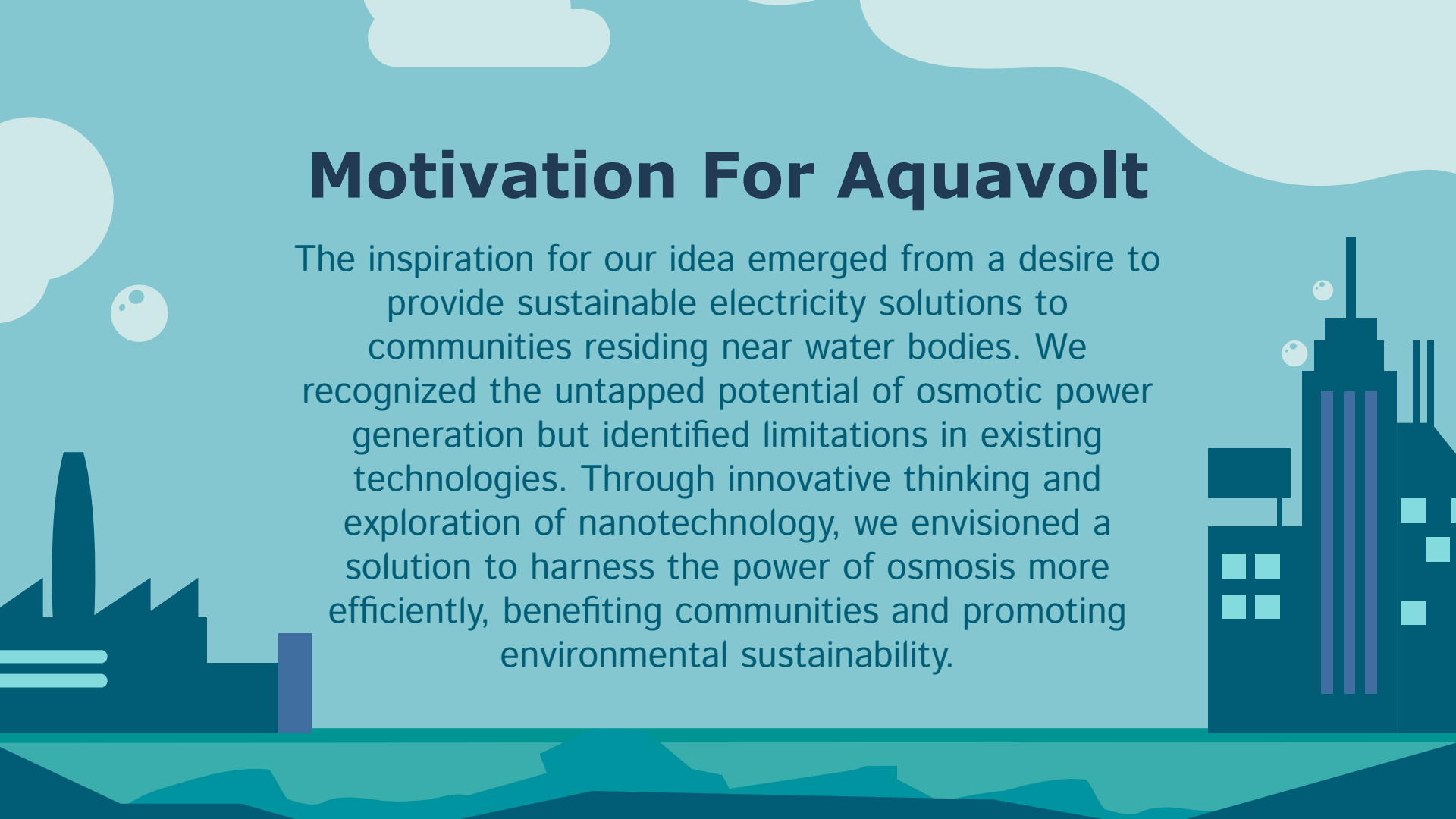
Proposed Solution

The proposed solution involves replacing traditional semi-permeable membranes in osmotic power plants with advanced nanomaterials. These nanomaterials offer superior selectivity and permeability, optimizing osmotic pressure for enhanced electricity generation. Harnessing the unique properties of nanotechnology, such as precise membrane structure control and improved ion transport, promises to revolutionize renewable energy.



Motivation For Aquavolt

The inspiration for our idea emerged from a desire to provide sustainable electricity solutions to communities residing near water bodies. We recognized the untapped potential of osmotic power generation but identified limitations in existing technologies. Through innovative thinking and exploration of nanotechnology, we envisioned a solution to harness the power of osmosis more efficiently, benefiting communities and promoting environmental sustainability.



Impact On Society

According to recent data, an estimated **1.1 billion** people worldwide lack access to electricity, with many residing in remote areas near water bodies

By leveraging osmotic power generation, we have the opportunity to provide sustainable electricity to these underserved communities, improving their quality of life and fostering economic development."

