**The Energy Hub**

The Energy Hub is part of grand scheme that was designed by a group of students for our final year project. The scheme consists of a Floating community, Flōt, located out at sea within the vicinity of Smart City which aims to provide housing, working opportunities and leisure sites.

Regarding energy consumption, the aim was for the community to achieve self-sustainability by harvesting the element through primarily the use of solar panels, wind turbines and wave energy absorbers. The Energy Hub aims to educate and encourage society to learn about how energy may be generated through green alternatives, as well as serving as a lab facility for green energy research.

The back of the structure lays at an angle of 30° and is oriented towards SSE - solar panels generate most energy when facing the Southern direction and at angle of the 30° however as the predominant wind in the Maltese Islands faces the North-Westernly direction a compromise between the two was reached.

The building envelope houses approximately 1000m2 of solar panels as well as seven wind turbines of varying sizes which where strategically placed around the center of the structure to use the envelope itself as a funnel and increase wind speeds, thus increasing energy generation.