

Why are geodesic domes getting more and more popular globally? Geodesic domes are three dimensional structures often used in architectures. They are built up with triangular skeletal struts or flat planes. Sounds very simple right? But how can this transform into a captivating and beneficial architecture that deserves worldwide attention?

Firstly, as you can see from the infographic, geodesic domes are very eye catching, attractive and noticeable. It inevitably stands out from all ordinary rectangular buildings and captures ones heart.

For example, located in Vancouver, Canada, the Telus sphere has been voted the most iconic building in the city.

Secondly, take geodesic domes as hemispheres and compare it with rectangular 3D architectures, letting $2r$ be the width and r be the height of both shapes respectively. By calculating the surface areas of the hemisphere and cuboid, as seen in the infographic, the cuboid have almost twice the surface area as the hemisphere. This indicates that the building cost of geodesic domes are way cheaper if the same constructing material is used.

Moreover, geodesic domes are self-supporting and very stable, stabilised by the forces of gravity. In other words, pillars and intermediary columns are not required. Hence ending up in more free spaces below, enclosing a maximum space with a minimum of inner volume.

Last but not least, the natures of geodesic domes are friendly to the environment. The spherical designs results in effective air circulation in both summer and winter. They are also naturally more energy efficient when compared to standard architectures due to unobstructed interior and exterior air flow. The relatively smaller surface areas makes these buildings less susceptible to temperature changes as well.

All in all, geodesic domes are winners in terms of appearance, cost and energy saving. Let' s discover more geodesic domes out there!