

THE TRANS NEPTUNIAN SPACEWAY

The Trans-Neptunian Spaceway offers services for both tourists and entrepreneurs that reach four Kuiper Belt's planets: Haumea, Makemake, Eris and Pluto from the Earth. For our visitors we give the opportunity to have a unique cultural and sensorial experience, for the entrepreneurs we created an intra- and interplanetary market among the Kuiper Belt planets and the Earth.

HAUMEA

As Haumea completes one rotation every 4 hours, we installed domes that permit to our clients to watch sunrise and sunset in groups of people. Those domes are provided with comfortable seating and restaurant service.

On each planet there is a themed resort, Namaka Resort is Hawaii themed with native staff and Hawaiian food, as Haumea is the fertility goddess in Hawaiian culture and Namaka is one of her daughter that named our moons.

The physical characteristic of this planet are so uncomfortable for living outside, because of the strong low temperature almost near the absolute zero.

In this planet we use some gasses methane melted in Eris with our system of record solar hydrogen production with concentrated sunlight, for melt iced cubes and product electric energy with an hydroelectric system. For heat all the infrastructure we used the melted methane from Eris and MakeMake.

MAKEMAKE

Makemake is Easter Island themed, because it was named after the Rapanui god of fertility from Moai's culture, and our Tapati Resort is a capsule hotel inspired by the Japanese style of capsule hotel. As Makemake is the second-brightest planet in the Kuiper Belt, we have installed solar panels to provide energy for our interplanetary system.

On its surface there are frozen methane and ethane that we defrost to use and sell.

We have installed a record solar hydrogen production with concentrated sunlight by concentrating sunlight, this device uses a smaller amount of the rare, costly materials that are required to produce hydrogen, yet it still maintains a high solar-to-fuel efficiency. We have installed an enhanced photo-electrochemical system that, when used in conjunction

with concentrated solar irradiation and smart thermal management, can turn solar power into hydrogen with a 17% conversion rate and unprecedented power and current density.

ERIS

Eris is first of all our industrial planet which is also used from industrial CEO from Earth. Here you can find one of the two producer of energy for our system, with a record solar hydrogen production that is also installed on MakeMake.

This planet is also populated with thousands of miniature icy worlds so we decided to use a melting system to dissolve it and to purify the water to make it potable for the visitors in the other planets too.

In this planet we also provide to cultivate an hydroponic system of agriculture for supply all of our interplanetary system with fresh fruit and vegetables. Hydroponics, by definition, is a method of growing plants in a water based, nutrient rich solution. Hydroponics does not use soil, instead the root system is supported using an inert medium such as perlite, rockwool, clay pellets, peat moss, or vermiculite.

We have created also different laboratories that can create different type of food using the same method of meat laboratory.

PLUTO

Using the planet conformation at 360 degrees, on Pluto, we have planed different type of activities and tours. In this planet, the day is made of 153 hours that can help with all the technical terrestrial issues for all the type of excursions with the light. For that reason we have planed different type of excursions on all the mountains, glacier, crater and valleys. We also have found that in midday, we can see the exactly same brightness of the light that you can see during the sunset. We have organized also some “ back from the future “ experience where you can try a full day in a native life.

In this planet we have a themed resort too called Sonida Resort that is inspired by the terrestrial franchise “ Jurassic Park “.

The energy in this planet is powered by solar panel.

We have a very thin atmosphere made by nitrogen, methane and carbon monoxide.

THE TRIP

In almost every nation our company will have a station where you can take a flight to each destination. During the trip we have to stop for refuel on our outpost present on the Moon so we can carry more payload from Earth and less fuel. Our spaceship is called “ TNS SpaceShip “ and is inspired by the SpaceX’s Starship spacecraft and Super Heavy rocket represent a fully reusable transportation system designed to carry both passengers and cargo from Earth to the Neptune Region. This is the most powerful launch vehicle ever developed with the ability to carry in excess of 100 metric tonnes to Earth orbit.

We have upgraded this technology with our engine that use nuclear fusion energy generated by using helium-3 that we will get on the Moon outpost. This method allow us to produce electricity without any radioactive byproducts so this is totally green energy. Moreover we will take advantage from gravitational slingshot to reduce the fuel needed.

The higher prices of this trip are justified by the visual experience that the TNS SpaceShip can offer. During all the trip, all the passengers are able to see all the solar system, planets, stars, asteroid included.

THE INTERPLANETARY OLYMPIC GAMES

To encourage people to buy our flight we have decided to host the first Interplanetary Olympic Games in the region. We have divided the winter and the summer sports into three of four planets for help all the costumers to chose which one is better for them.

In Haumea, thanks to the iced landed that we can find in all the surface, we hosted all the winter sports with all the infrastructure conformed with the Olympics Regulations.

In MakeMake we will host the archery games, all the athletics categories, all the fight categories and the shooting games with all the infrastructure conformed with the Olympics Regulations.

In Pluto, thanks to the conformation, we will host the aquatics games, the team sports and all the gymnastic categories with all the infrastructure conformed with the Olympics Regulations.

In all the planets we built an Olympics Village for all the teams and the staff, we have also make a special offer pack for the resort and the Olympic Games tickets.

Sources:

- <https://www.spacex.com/starship>
- <https://actu.epfl.ch/news/record-solar-hydrogen-production-with-concentrated/>
- <https://solarsystem.nasa.gov/planets/dwarf-planets/pluto/overview/>
- <https://solarsystem.nasa.gov/planets/dwarf-planets/makemake/in-depth/>
- <https://solarsystem.nasa.gov/planets/dwarf-planets/haumea/in-depth/>
- <https://www.valentinasumini.com/mars-city-presentation>
- <https://www.youtube.com/watch?v=JboqeUqQiv4&t=324s>
- [https://www.nasa.gov/directorates/spacetech/niac/2012 Phase II fusion driven rocket/](https://www.nasa.gov/directorates/spacetech/niac/2012-Phase-II-fusion-driven-rocket/)