

Future Transportation: Going Subterranean

As I step out of the door I inhale the unpleasant scent of smoke in the sequestered night sky. I peer out into the misty sky with my eyes desperately scrambling to find a star, then my heart sinks. Of course, it has become impossible for humans to spot the stars! I clamber into my car, jam the key into the ignition, the engine splutters a few times, then the car roars to life. The car surges forwards, as the grey plumes of smoke tail behind. The world is dying.

The past three years have seen over 120,000 people – the size of Tauranga's population - descend upon Auckland's doorstep! A similar number of new vehicles have been registered on the roads, where the average speed on the motorways slowed from 64 km/h to 55km/h in a space of two years! More than a quarter of the main roads are congested at peak times. Buses are filling up fast! The award winning \$18 million pink cycle path has helped to alleviate traffic congestion, but even this is starting to feel the pressure of the continued population growth. Apart from the twin-tunnel Waterview motorway tunnel, everywhere you go there is bottleneck. People are stressed!

Ah! I exclaim, as I wake up from my daydream... that was 2030, the year is 2050! It has been a long day of studying at AUT and my brain is feeling the effect of the hard work. I am ready for a mental break.

Auckland population has increased significantly from about 1.5 million in 2030 to well over two million in 2050. It is now home to 37% of New Zealand's population. We have beautiful electric cars buzzing around the streets, with people happily moving freely. Two subterranean transportation facilities have been built, creating more space for cyclists, pedestrians including those with disabilities.

I walk down a ramp. I look above me and marvel at the ocean marine life that freely swims all around me. I see schools of fish flicking their tails languidly. A sailfish streaks by in a blue blur. No, I'm not at Kelly Tarlton's! This is the new underwater tunnel in Auckland! I feel a sense of calm and clarity as I walk through the 6km transportation tunnel, which has numerous points of exit along it. For a moment I experience the cognitive break that one experiences when they are near, on, in or under water. The sound of the city traffic above me seems lost for a while. To the left and right and above, all I can see is the ocean. I look at the vast ocean above me and imagine all the ways the light, sound, and smell of the water are influencing my state of mind.

As I stroll further down the ramp, I wave to the friendly old man on the disability lane. The man is hunched over his walking frame. He is moving slowly on the conveyor belt. His wrinkled face is scrunched slightly in the middle. His glasses are sitting still on his nose. His arms are skinny and wrinkled and his hands are pale and motionless. Despite all of this he still gives me a gentle wave and a toothy grin. It is wonderful, there are at least 15 free to use electric wheelchairs, parked up gently on the side; and a gigantic disability ramp, for the old blokes that have trouble moving.

As I amble further down, I eye the Zend Globes. These are hovering glass spheres, that are powered by the ground they hover across. The ground emits powerful X-rays that electrically charge the spheres on the move. The maximum speed is 30 km/h. There is a computer on the front glass screen explaining the different species of fish and marine life. 6 new species of aquatic animals have been discovered since 2017. With the new technology, things like discovering new breeds of fish has never been easier. Another thing that catches my eye, is the hydro powered Ecto-Tube. It is a glassy cylinder that has a suction pipe and propellers.

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The pipe sucks up water which in turn powers the propeller that surges the vehicle forward. The Ecto-Tubes are dropped off into the outside ocean so you could get a close up view of the fish. Personally, I am extremely nervous about getting dumped into the ocean trapped inside the Ecto-Tube with enormous aquatic beasts circling it. There isn't a break the glass option either. I get that thought out of my head and hurry along quickly. I am not here to act like a tourist, I have to move through the transportation tunnel so I can get home to Rotorua. The enhanced transport system has removed the need for out of town university students to find accommodation in Auckland. I decide to take one of the free parked vehicles. I slumber onto a Rexon. A human powered hover bike. The Rexon is very efficient, reaching speeds of over 70 km/h. But since we are indoors, it is switched on safety, mode, around 1-10km/h.

I pedal casually, but the bike is hitting the top safety speed. It is amazingly efficient. This transportation tunnel is an extraordinary idea. Now that this transportation tunnel is built, I can get home much faster! I drift past people. I realise that there are fewer people at this time of day, so I take the safety lock off and pedal harder. The wind is rushing in my face, my heartbeat is right up. The thrill and the joy of this is exhilarating. I am clocking speeds of around 60km/h, with no seatbelt.

I slow to a halt as I reach the end of the enormous tunnel. I park the Rexon and leap off it. Right in front of me is a glassy tube that acts like an elevator. The door flies open as I strut towards it. I board the tube and press *Up and Out* on the interactive screen. I close my eyes, I rocket up. As I open my eyes, everything appears as a blue sonic blur. Although I am going at insane speeds, I don't feel uncomfortable or fearful. Finally, I reach the top. I head towards the door and move expeditiously out of the building.

I race down the street to Auckland's Hyperloop system and quickly buy my ticket. The Hyperloop has a staggeringly beautiful metallic glow. The windows gleam splendidly. The miraculous vehicle hovers clearly over the track. A crowd of people swarm onto the Hyperloop. It hums with power. It is my first time on the Hyperloop. I walk nervously onto the platform. I scan the nearby area, and watch people whizz past me in their electric cars. I spot two solar powered buses that are following each other. The first bus has a powerful electro magnet that is hauling the other bus along. The other bus seems to have a battery failure and is getting pulled across the city to get repaired. They are moving at roughly 40km/h, with a fleet of cars crammed behind.

I meander inside the Hyperloop. It is luxurious! Smooth black tables glisten, with the latest iPads embedded inside. There are at least 5 massive flat screen TVs with couches sitting directly in front. Not that I need it, since the trip will be extremely quick. Apparently the Hyperloop could reach speeds of 1300km/h. The doors close, as I sit timidly in my seat. The Hyperloop starts to move. My heart is pounding. It feels like it is tunneling through my ribcage. My heart can be a professional boxer. The Hyperloop is now accelerating at a tremendous rate. I hear the gasps of tourists. I clench my chair tightly.

Suddenly, the feeling of dread washes over me. I am now comfortable.

Bang! We broke the sound barrier.

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