Introduction

LinkTo Wikipedia Podcar page

Personal rapid transit (PRT), also referred to as podcars, is a public transport mode featuring small automated vehicles operating on a network of specially built guideways. PRT is a type of automated guideway transit (AGT), a class of system which also larger vehicles all the way to small subway systems. PRT vehicles are sized for individual or small group travel, typically carrying no more than 3 to 6 passengers per vehicle. Guideways are arranged in a network topology, with all stations located on sidings, and with frequent merge/diverge points. This allows for nonstop, point-to-point travel, bypassing all intermediate stations. The point-to-point service has been compared to a taxi or a horizontal lift (elevator). As of 2012, there are five operational ATN (Automated Transit Networks) in existence today.

Advancements in technology have made the following PodCar (PRT) system possible

- full scale eco-green personal transportation system
- centered around multi-million person population centers such as Silicon Valley
- step out your front door and go less than a block to be silently whisked away downtown and dropped off a block or two from your meeting or event
- the PodCar continues to service another group of 1-6 people somewhere else
- when you are finished go a short distance and get picked up for the return trip
- a PodCar ride will usually be five to twenty minutes in duration
- use your PodStop smartphone app to coordinate activities and payment
- price will be reasonable as the energy source is 100% solar.
- have a personal portable electric scooter that goes perhaps ten miles an hour for that first and last block – collapse it and take it with you
- silently glide on rails thirty feet above ground level

Video Portion

Video 1
"Our first YouTube video describes eco green transport at 4000 miles per hour for long distance travel."
Zeitgeist - Transportation of the Future
3Min 18Sec
Takeaway - long distance travel at 4,000 miles per hour is possible using only green technologies
LinkTo YouTube Video

Video 2
"This next YouTube video demonstrates how residents of Uppsala Sweden could get an upgrade in their local transportation system."
Animated Pod-like Transportation System
Uppsala Solar Skyways
4Min 57Sec
LinkTo YouTube Video

Video 3
"This YouTube video highlights Gary Stark's energy in describing his 'perfect' transportation system that can be put in place right now."
Gary Stark Has an Idea
6Min 10Sec
Reference website is LinkTo the PRT Project
LinkTo YouTube Video

Video 4
"The final YouTube video in this tour describes a dozen vehicles on the fringes of transportation. Watch for the personal 55 pound device you can sit on."
The 13 Strangest Vehicles Ever Made
8Min 37Sec
LinkTo YouTube Video

Discussion

Reference System

Although all of the videos present portions of a usable future eco and green transportation system, none are optimal, making use of recent technological advancements such as the smartphone.

The PodCar Public Personal Transportation System for use in the United States of the future should have these eight Optimal Qualities:

- no waiting in lines
- fast
- safe
- reliable
- immersive experience
- flexible
- inexpensive
- renewable energy fuel source

Optimal Implementation Environment

- large urban locus (1 million people or more)
- where people think in terms of cubic feet, not square feet
- great need: traffic congestion, pollution increasing, growing population
- desire for eco and green fuel source
- populace willing to trade their steering wheel for the Optimal Qualities described above

Some Obstacles To Overcome and a few Proposed Solutions

Obstacle I want door to door service
Solution A [Realization of current downtown "cubic feet" living]
live in multistory building
currently park car a distance from front door
stairs or elevators involved
B [For single family "square foot" living]
commute into densely populated urban area
use both podcar and privately owned rubber tire vehicle
best of both worlds
achieve Optimal Qualities when using podcar system

Obstacle I want my privacy – We want our privacy
Solution PodCar design

- standard layout of six person-sized cubes, two wide and three deep front to back
- there will be no windows. Instead use large front, left, and right video screens
- each PodCar has cameras for front, left, right, and rear views
- camera views are accessible to each cube in a personalized manner
- heavily relies on personal, connected smartphone technology
- all standard PodCar cubes are identical, but automated customization is possible

Obstacle I want to carry my work tools with me to the job site
I want to use PodCar on the weekend and have luggage to carry with me
Solution Flexible interior PodCar layout

- can be converted in automated fashion
- layout schemes include Family, Worker With Tools, Specialty

Podcar City Conference
LinkTo PodCar City Annual Conference

The Podcar City Conferences are an initiative of the Institute for Sustainable Transportation (IST) in cooperation with the International Institute for Sustainable Transportation (INIST), ATRA and the KOMPASS Network to gather major stakeholders, affected by today's transportation issues at all levels.

2016 Sep 19-21 in Antwerp, Belgium
“Podcar City & Advanced Transit – Automated Mobility on Demand”

Previous conference sites have been in:

- Germany: Berlin
- Sweden : Atlanta, Malmo, Stockholm, Uppsala
- United States: IthacaNY, SanJoseCA, SiliconValleyCA, WashingtonDC

Spartan Skyways Podcar System
“The Spartan Superway” - an automated transit network
In early implementation phase
Major Contributors are

- San Jose State University
- Solar Skyways LinkTo Web Site

References:
Official Blog LinkTo Blog
Spartan Superhighway Home LinkTo Home Page
Details LinkTo Project Details
Twelfth Scale
Intermediate Scale
Full Scale
Solar Power Design
Human-Centered Design
Pictures Gallery of Photos

Conclusions

Better technology such as the internet, smartphone, pervasive solar power, personal rail transportation, and automated robotic customization, along with **worsening urban conditions** such as traffic congestion, greater population density, safety concerns, and pollution concerns are thrusting us toward a new optimized personal transportation system where there are no steering wheels and no lines.
The challenge to implement **Optimal Qualities of a) no waiting in lines, b) fast, c) safe, d) reliable, e) immersive experience, f) flexible, g) inexpensive and h) renewable energy fuel source** will be extremely enticing for today's commuters and others.

Even great advances such as self-driving cars will not effectively solve enough problems.

No one wants to lose control but everyone sees the need for commute times of less than 4 hours.

A PodCar system can make all of this possible,
but we will never completely abandon surface streets with their driver-controlled vehicles.