

Podcar City 8

Post-Car Urbanism Conference:
Implications for Town & Airport District Planning

To the next level!

3-5 September 2014 
at Arlanda International Airport, Stockholm Sweden

For registration and more information, visit
www.podcarcity.org

Podcar City 2014 – Newsletter June 13 2014

Welcome to Podcar City 8!

Dear attendees, speakers, sponsors and exhibitors - Welcome to the 8th International Podcar City Conference – To the Next Level

Learn from experience, meet experts and network for better understanding and utilizing next generation of public transportation –



A Podcar comes when you push a button and takes you direct to your destination.

The conference is addressing You as a real estate developer, urban planner, elected official, agency administrator, academic, architect, traffic planner, consultant and others who are involved and concerned of how we form the emerging urban society today and for Next Generations. The 2 1/2 days conference will cover different topics:

- Podcars at airports – for mobility and development
- Urban trends and added values with Podcars
- Land use challenges and opportunities with Podcars
- State of the Podcar Industry
- Procuring process, business and financing models .. *and more!*

REGISTRATION, MORE INFORMATION AND CONTACT AT
<http://podcarcity.org/arlanda>

In this issue:

MORE PEOPLE ASK FOR GOOD PUBLIC TRANSIT STANDARDS

Page 2

FORWARD TO PODCAR MODALITIES

Page 3

MAKER FAIRE – THE GREATEST SHOW AND TELL ON EARTH

Page 4

THE SPARTAN SUPER WAY AT INTERSOLAR

Page 5





MORE PEOPLE ASK FOR GOOD PUBLIC TRANSIT STANDARDS

Over the years of the conference every second year a new Podcar vendor has accomplished a commercial installation of Podcar systems – in Abu Dhabi UAE, Heathrow Airport UK and Suncheon South Korea. And in the pipeline almost a new upgraded Podcar system is ordered for Morgantown WV in US. The proven applications are for an airport, a campus area, a business area and a wild life park. The experiences of these new Podcar systems show high rider acceptance, technical reliability and are easy to build. The Podcar market is maturing and it's time to discuss bigger applications to meet challenges of today's urban development – Podcars in the build environment i.e. Podcar City.



Heathrow PRT by Ultra

The place chosen this year for the venue is Arlanda Airport, Stockholm. The area is not only easily accessible, it's of special interest because the airport authority, the municipality and the big land owners have together rolled out a master plan to create "Airport City Stockholm", that will host 50.000 work places from today's 20.000 in the next 20-30 years. High on the agenda for the project are: how to create competitiveness, urban quality and good access to and within the area with public transport? Can Podcars be part of the solution, at airport landside and beyond?

The project is far from unique. Urbanism is a global trend and big cities are growing in Europe as they are internationally. Another trend is that cars are not seen as positive as before. Many big cities, such as Paris, Hamburg, London, New York and Stockholm have taken actions against cars, e.g. congestion tax, generous city-bike rent, bike lines, walkable streets. These actions are taken in city centers where high standard of public transit are available. The USA has reached peak-car and many other western countries seems to follow. How to plan for an alternative to cars?

The growth of the world's cities will by and large be in the outskirts, by for example creating regional city cores with new dwellings, work places and commercial areas. Most of the suburbs were planned and built during the car-era; with low density, external shopping malls etc. The situation is challenging to convert and cultivate a car-based suburb to a regional core, not the least when it comes to finding suitable public transport systems of any higher standard than buses.

Podcars give new dimensions to transit oriented development. Instead of being limited to transit corridors, areas can be covered with automated transit networks (ATN). Podcar systems can jump barriers, tie together urban parts and connect to other public transit systems, in a very flexible way.

Magnus Hunhammar - Your Conference host



FORWARD TO PODCAR MODALITIES

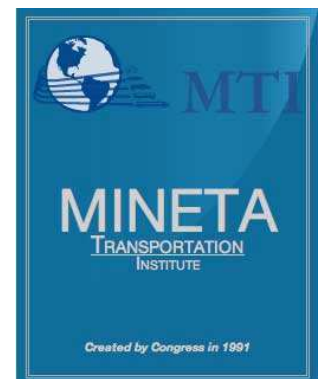
A team of researchers at San Jose State University's Mineta Transportation Institute ("MTI") have taken a hard look at the PRT/ATN* proto-industry and concluded that anticipated benefits well justify the risks. The core of the technology is software, not hardware, and MTI sits in the heart of Silicon Valley. The policy implications of the MTI report - still in review -- are that project planners, developers and public officials can confidently carry out modest ATN projects of, say, ten stations. A second phase could aim at 20-25 station networks.



The MTI team was led by Professor Burford Furman, professor of civil and environmental engineering at SJSU. The team includes members with expertise in civil, structural and electric engineering, prototype fabrication, urban and regional land use, real estate development, solar power capture, and airport planning. The objective is to create a reference useful to urban practitioners.

The implications of this assessment are that many urban infrastructure implementations lie before us. Architects, urban designers and zoning officials will be excited by the possibilities to make community life more sustainable and healthful. ATNs can be planned to solve last-mile problems, mitigate new construction, relieve parking problems, better connect neighborhoods to existing transit hubs, and create more sustainable airport commercial districts. Observing the guidance often offered in planning circles, the devil is in the detail. There is much work to be done.

MTI recommendations assume that thorough engineering, certifiable design and planning, diligent project management and disciplined O&M training will apply to ATN implementations -- much as they would to any urban civil project. The team did not focus on ATN technology itself nor offer pre-emptive choices about vehicle-guideway interface (suspended versus mounted vehicles) or vehicle size and propulsion. The report does explain the unique topology of ATN system configurations - one way vs. two-way, station placement and sizing, and the vertical placement of the guideway. It emphasizes that guideways need not be elevated and points out the interesting three-dimensional potentialities of at/near grade and underground placements.



Entitled *Automated Transit Networks: State-of-the-Industry 2013*, the report gathers in one place valuable historic and commercial information. The final form is to be released in time for **PCC8** in Stockholm, Sept 3-5.

MAKER FAIRE – THE GREATEST SHOW AND TELL ON EARTH



What does Maker Faire have to do with Podcars? Strangely enough, there is a connection. If you have never been to a Maker Faire, held every year in California's Silicon Valley and many other cities, you would not believe the strange and wonderful things you will find there. You might see a huge mechanical giraffe watching a band performing amidst man made lightning flashing all around them while a woman dressed in a Faraday Cage dances to the beat of the lightning striking her. In another area, earnest computer aided designers build elaborate devices before your eyes with 3D printers and miniature milling machines. You would be amazed at almost every turn.

Last month near the back of the huge San Mateo County Fairgrounds, for those with enough stamina to get there, was an exhibit put on by students from San Jose State University who have taken on the task of working through some of the technical challenges involved with building a working podcar system. They call their project the *Spartan Superway*.



One of the most impressive parts of the Spartan Superway display was the full scale guideway section complete with functioning bogie. On an entirely different scale was an oval 1:12 scale model with a podcar running on it, leading small children like a mechanical rabbit at a greyhound track. At the rate these students are going, they may be the first to demonstrate a working podcar system with a suspended guideway powered by solar photovoltaic panels. Stay tuned!

Loren Kallevig, INIST

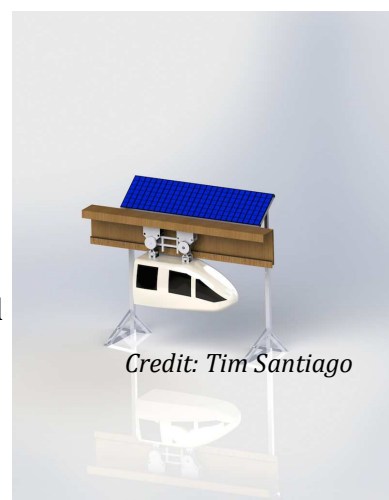


THE SPARTAN SUPER WAY AT INTERSOLAR

San Francisco, July 8-10, 2014

San José State University engineering students has been challenging the status quo, not only questioning the automobile in the broader transportation arena, but also finding out how to achieve sustainability within the narrower context of podcar development. Joining their initiative are quite a few students in urban planning, industrial design, and business.

For starters they have chosen the more challenging path of designing and constructing a suspended podcar system. When at the beginning of the school year one of the students asked Professor Furman, "Why are we doing a suspended system?" the reply was, "Because it's harder to do!" Dr. Furman went on to explain that designing a suspended system is worth the extra trouble: the much narrower beam offers the prospect of a much smaller visual imprint which could be an important factor in political acceptance; it can be More comfortable for the rider on turns; it can be lighter weight and more aerodynamic; and it makes it possible to have minimalist stations by ramping podcars down to ground level without putting the riders on a slant.



Credit: Tim Santiago



Furthermore the students learned to appreciate that we have more than just a transportation problem with our ongoing dependence on the automobile. We also must consider climate change and fossil fuel energy consumption on our way forward, so they quickly discovered that a

suspended system makes it a lot easier to incorporate solar energy as the prime motive force -- by putting the solar array directly on top of the guideway.

Having achieved a breakthrough with their proof of concept prototype at Maker Faire (see above), word got out and the management of the Intersolar show invited the Spartan Superway team to exhibit at the upcoming Intersolar trade show at Moscone Center in San Francisco, from the 10th of July, in an exhibit hall that will be hosting 30,000 solar professionals.

The students' presentation will doubtless be well received in the solar community. As we all know, there has been a significant growth in the solar industry lately and now with the prospect of solar as the primary energy source for transportation we can see even greater growth ... and everyone wins by achieving mobility for a world beyond oil. The Spartan Superway byline sums it up nicely: **Rise above!!**

Ron Swenson, INIST

https://www.inist.org/projects/spartan_superway

For program, registration and news:

Go to

www.podcarcity.org/arlanda

Some of our speakers

