

Presented by Swedish Institute for Sustainable Transportation and Connect Ithaca LLC

### **CONFERENCE NEWSLETTER #2 - August 15, 2008**

### **BREAKING NEWS:** SANTA CRUZ, CA APPROVES RFQ FOR PODCAR NETWORK

On July 22, the City Council of Santa Cruz, CA, decided by a 6-1 vote to go ahead with an RFQ (Request for Qualification) with the aim of inviting PRT manufacturers to design, build and possibly operate a Podcar system between the City of Santa Cruz and the University of California Campus. The main objectives are to find solutions to increasing parking problems, congestion, and pollution and to lower greenhouse gas emissions. The RFQ clearly states the importance of aesthetics, seeking to insure that such a system does not detract from the City's renowned ambiance.

Several professors and researchers at University of California Santa Cruz support the Council decision, and recently an \$80.000 grant was awarded to the University for Podcar related studies.

### IN THIS ISSUE:

IST

Letter from Christer	2
Speaker Profile:	
Joan Bokaer	2
Industry Update: MISTER	3
Industry Update: Sky-Tran	4
Industry Update: Cyber-Tran	5
Speaker Profile:	
Robert Morache	6
Registration & Travel	7
Eye on Ithaca:	
Statler Hotel	8
Special Fee Update:	8





This program was made possible by support from the Tompkins County Tourism Fund



## **IT'S THE ECONOMY, STUPID!**

A common question I get is "what do Podcars cost?" Well, I usually reply with "how much of your family budget do you spend on transportation today?" It is pretty amazing how much most families spend on several cars, and paying taxes for parallel fleets of public busses for school, city & regional transit.

A Podcar system, with connections to high speed intercity passenger rail, a nice trolley serving a downtown area complete with lushly landscaped pedestrian areas and dedicated bicycle lanes would not cost more than having a car. Actually, it would cost significantly less, by consolidating overlapping public mobility systems and

reducing the need for every family to own and operate 2 or 3 autos. Families would have money for other things instead. By living more densely and utilizing each transport mode for what's it's best at, cities can become much more than a mix of garages and offices downtown with sub-urban houses scattered at the perimeter. They could reclaim the streets and the quality of life that made our cities into memorable places before we put all those oversized freeways right through the heart of our society.

Switching to sustainable transportation is not an option – it is something we have to do because of both our global and economic situation. Podcars are one of the many "outside the box" solutions we need to explore on the path to an environmentally *and* economically sustainable society. While Europe, Asia and the Middle-east are building Podcar systems as I write this, the real need is right here, in the society that spends the most on its cardependency. I sincerely hope the Podcar manufacturers and their consultants, together with researchers and elected officials can begin taking the steps needed to advance mobility beyond the car, to keep our families and cities from hemorrhaging income un-necessarily.

### **PRESENTER PROFILE: JOAN BOKAER**

Joan Bokaer founded the EcoVillage at Ithaca where she has lived since it was built in the early 1990s. In 1996 she co-convened the Third International EcoCity Conference which was hosted by a traditional fishing village in Senegal, West Africa. She spoke at the Fourth International EcoCity Conference in Curitiba, Brazil and more recently at the EcoCity World Summit in San Francisco. Last summer she presented her vision of transforming Ithaca into an EcoCity. Some highly gifted professionals including architects, planners, artists, builders and grass-roots activists, formed a group to realize that vision. They became Connect Ithaca and have been working with Christer Lindstrom to convene the second annual Podcar City Conference in Ithaca, New York.



Joan was a national speaker throughout the 1980s for nuclear disarmament. In 1990 she organized A Global Walk for A Livable World: more than a hundred people from eight countries joined the walk from Los Angeles to New York to raise awareness about environmental issues. A smaller group continued around the world. She returned from that walk with a commitment to found an ecovillage in Ithaca. In 2000 she took a seven-year sabbatical from her EcoCity work to educate the US public about the pervasive influence of the Religious Right in the US government. The program was called TheocracyWatch. Once the theocrats lost their grip on the U.S. Congress in 2006, she returned to her first passion: promoting the Ecological City.

Joan will address the Monday September 15<sup>th</sup> plenum session in the Statler Auditorium at Cornell University.

### **QUICK FACTS** ON PODCARS OF PRT (PERSONAL RAPID TRANSIT):

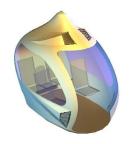
- The light weight of Podcars allows them to use far less electricity than electric automobiles, which must carry motors and batteries. This makes it more possible to run Podcars on solar and wind power.
- Pods typically have space for 4-6 people, bikes, and luggage and are fully accessible to the disabled.

# **INDUSTRY UPDATE:** MIKOSHA MISTER SYSTEM wins another city order even before it is tested.

The MIKOSHA MISTER system from Poland has gained another city order even before the work has started on the test and certification track. Rzeszow is the capital of one of Poland's 16 states and has recently been inspired by the visionary promise and benefits of PRT. The City's Mayor and Council are currently considering best ways to provide funding for the pilot system. Although MIKOSHA MISTER has already gained full support and permission to build in two other cities in Poland (Opole and Warka), they were not in a position to fund it. However, despite the funding obstacles, Opole has already allocated some 6 acres of land for the MIKOSHA MISTER test track and has planned routes for an initial 4 km pilot network, and then a 34 km city wide system. Since the system will be built in the existing city fabric, this makes Opole the first city in the world to have given a definite YES to the building of a full PRT system to solve their transportation problems.

As often happens, once a breakthrough occurs the flood gates open up. There are another 3 regional capitals in Poland about to sign up for MIKOSHA MISTER development, while Israel and two other mid-east countries are seriously examining its introduction. MISTER did not win Masdar's contract for the 1<sup>st</sup> phase of PRT development there, because its test facility was not complete. However we hope that the story will be different for the next round of development there, sometime in 2009, when our test track should be fully functioning.

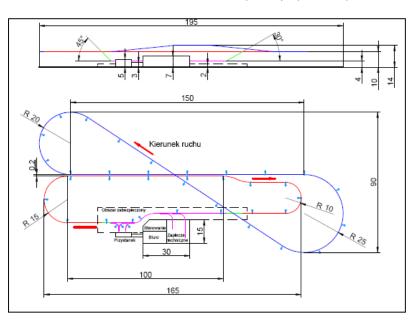
The MIKOSHA MISTER system's uniqueness comes from its suspended and asymmetric guideway concept, patented cross-over system and very lightweight design. MIKOSHA MISTER seems to have the lightest vehicle and best payload to DWT ratio. It also differs from the leading ULT'ra, 2getthere and Coaster designs insofar as it is powered via an electric rail, similar to LRT. The lack of heavy and un-ecological batteries removes many of the problems associated with carrying this heavy load, charging, swapping and storing batteries.





MISTER prototype demonstrated in Opole City square in Sept 2007

Having a very light truss guideway, structure (weighing under 100 kg per meter, the lightest of all current PRT guideways) reduces infrastructure costs. Having such an overhead guideway also simplifies software, since there is no need for the complex navigation and steering control needed for free-driving vehicles. The main part of software system is concerned with the logistics of the fleet management within the rail network. This is not a small task for any PRT system, but since MIKOSHA MISTER is also designed to be a high capacity PRT network, with headways of 10 meters, the software must be absolutely fail-safe. The ability to change the destination station while en-route and automatic re-routing of the traffic in case of any congestion or problem at any of the nodes, are just some of the other benefits.



Planned test track configuration In Opole, Poland

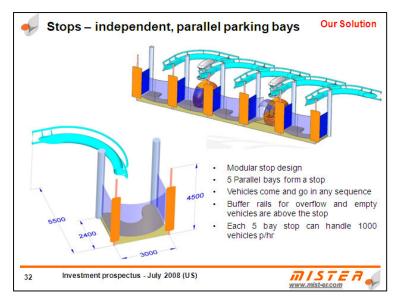
### **CONFERENCE NEWSLETTER #2 - August 15, 2008**

Having cabins which hang from an overhead guideway structure gives MIKOSHA MISTER a few other advantages over the bottom supported systems, such as the ability to climb and descend over inclines in excess of 45 degrees while maintaining a level floor. Steep inclines also reduce the ground footprint of the ground accessible stops, as they do not need long ramps. There is also no need for seatbelts, because the cabin will tilt upwards, countering the breaking and accelerating force. There is also no need for banking of the track to counter centrifugal forces either, since the cabin can also tilt 20 degrees sideways during cornering, maintaining occupant comfort, even with a tight turning radius of only 3 meters.

These are only some of the major advantages that MIKOSHA MISTER is offering. They translate into greater simplicity of the overall mechanical drive system, leading to better reliability and lower development and operating costs. The economics of the MIKOSHA MISTER system are hard to beat.

- Five seats (2 business class + 3 standard, foldable)
- 400 kg payload (Europalet carrying capability
- in the standard vehicle)
- 300 kg vehicle weight
- 50 kph (30 mph)

More information at www.mist-er.com and on http://faculty.washington.edu/jbs/itrans/ (including investment prospectus)



### **INDUSTRY UPDATE:** SkyTran<sup>™</sup> Advances To Demonstration Phase

Unimodal System's SkyTran PRT design eliminates the use of wheels and mechanical rotary bearings. The system incorporates magnetic levitation (maglev) as a non-contact, low-friction suspension system that significantly reduces maintenance because there are no load bearing wheels to fail. Propelled by an electric linear motor, the vehicle requires no active electrical input to levitation magnets that suspend vehicles on the guideway. The ultra energy efficient maglev-linear motor combination is equivalent to a 500 mpg automobile at 35 mph.

Principal vehicle characteristics: 2-3 seats - 500 lb. Payload - 100 mph

The SkyTran system uses a fleet of automated vehicles that travel on a dedicated guideway network. The operation of the system and movement of the vehicles on the network is managed by software developed by Unimodal Systems.

The innovative design of the SkyTran system provides unique advantages, notably a low cost, low maintenance, and ultralightweight system with a small footprint. This approach maximizes seamless integration with office buildings, malls, and stadiums as a high-speed "horizontal elevator."



The vehicle's tandem seats are roomier than those found in a first class airliner. Hanging vehicles bank naturally into curves for improved rider comfort. Grade climbing angle is only limited by rider comfort.

The SkyTran system is highly adaptable. Modular design and fast on-site assembly makes for rapid network expansion.

# **INDUSTRY UPDATE:** Investment converges on CYBER-TRAN automated rail system

The history of passenger rail is that of a consistently ambitious and costly enterprise that has always found it tough to turn a profit. Today only Amtrak's Northeast corridor makes any money on passenger rail... for now.

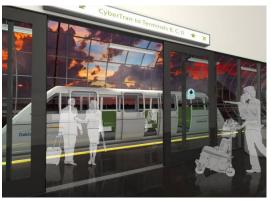
In the last thirty years or so, innovations have been made in how control systems operate, and new energy sources have been made available to us as well; but rail hasn't yet been made any cheaper and it certainly isn't any easier to install, given the current restraints of an auto-centric infrastructure and decades of auto-centric urban development.

But we live in an exciting time. With today's increasing consumer transit demand, increasing incentives for sustainability and immense progress in technologies such as microchips, solar energy and radio communication, a major shift in the way rail's future can be conceived, indeed how all public transportation can be conceived, is already taking place.

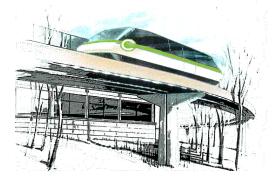
Since 1998 CyberTran has been quietly developing the science and engineering needed to revolutionize rail transit. Imagine automated rail with the highest and most flexible system capacity ever proposed. Imagine the highest number of express routes any system has ever been able to offer. Imagine spending less per passenger per mile on construction and operation than has ever been possible. Imagine stations that are conveniently located in your immediate vicinity. Imagine riding in the lightest vehicles along the sleekest guideways. Imagine, for the first time, a real sustainable urban transit solution.

CyberTran is proud to announce we have recently received major investment, and are negotiating the first major contract to allow the deployment of our vision.

**PODCAR CITY: ITHACA** will feature the world's top manufacturers of PRT, GRT (Group Rapid Transit), and other forms of sustainable transit innovation. Do not miss the opportunity to meet with top scientists, investors and CEOs in this exciting new field of public transportation!



Artist rendering of interior elevated station



Artist rendering of completed guideway



Photo of early grade test



Artist's rendering of exterior elevated station

## **SPEAKER PROFILE: ROBERT MORACHE**



Rob Morache is the Chairman of Connect Ithaca LLC, a collaborative company which is focused on transforming the city of Ithaca into a more sustainable urban center by reducing automobile dependency and re-thinking transit and development strategies at a systems level. Hosting the Podcar City Ithaca conference is part of that effort. Rob lives in Ithaca and is an architectural design consultant with a focus on housing and sustainable energy. He has also taught design at Syracuse University.

## **Presentation Title:** Podcars in Ithaca - Compact urban development using a people-oriented mobility strategy

#### Authors: Robert Morache and the Connect Ithaca team.

As the prospect of higher density development is contemplated by the City of Ithaca, the problem of new development attracting car traffic and increasing congestion must be effectively dealt with. If not, the increasing demands of the automobile on this small college town's infrastructure threaten to ruin its much lauded character and livability.

As in other American cities of all sizes, the use of the car in Ithaca as the *primary* means of mobility is becoming a *limit to growth*. However urban growth will soon become a necessity, as rising fuel prices and the need to address global carbon emissions make the car-dependant and energy-intensive suburban lifestyle inconvenient, cost prohibitive and ethically questionable. Cities will need to absorb more people to conserve farmland, conserve energy and optimize public resources. Any limits placed on the re-development of compact, walk-able urban areas will compromise the economic viability, food security and overall livability of entire regions.

This presentation by designer Rob Morache will describe an alternative to caroriented mobility in Ithaca: a people-oriented multi-modal mobility system, including PRT, which offers the possibility of lifting the limit to growth and making possible a dense urbanity *without overwhelming car traffic*. It will examine some of the critical issues regarding both mobility and urban development which must be addressed by this community as it contemplates a future less dependant on automobiles. With regard to PRT in Ithaca, we will speculate on what it will look like, where it will go, how it could be paid for. Most importantly, we will address not only how can it be used as a means of mobility, but how it could act as a tool for the public to guide development, such that Ithaca becomes a coherent and economically resilient whole, that is convenient, affordable and fun to live in and visit.

\*Robert Morache will be speaking on Tuesday September 16 – 1:10pm Track A – Cities for the Future, Hilton Garden inn, Upstairs Room

### Will our future be the Auto-City...





## **PODCAR CITY: ITHACA ~ PROGRAM, TRAVEL & FEES**

### TRAVEL TO PODCAR CITY: ITHACA

For visitors from Europe, or any person traveling through Heathrow Airport, London, please contact **eutravel@podcar.org** for information on group arrangements that are being planned from London on Saturday September 13, with chartered bus from New York to Ithaca. This opportunity will include a visit to the ULtra System at London Heathrow on Saturday Sept. 13th.

US visitors arriving to Syracuse or New York City on Saturday, Sept 13th or Sunday, Sept 14th, please contact **ustravel@podcar.org** for possible shuttle service to your hotel in Ithaca.

Regarding your hotel, please find information when using the register function at our website: **ithacaconference@podcar.org** 

The discount for rooms at the Ithaca Holiday Inn is only available a few days more! Please register asap to see conference rates. If you are not able to book before closing date, you can book directly by calling Holiday Inn, at (607) 272-1000 or go to http://www.hiithaca.com/reservations.php

### **REGISTRATION FEES**

- Regular, all inclusive (\$610.00)
- IST/ATRA/CityMobil/ULI/Group all inclusive (\$495.00)
- Exhibitor, all inclusive, banquet for 2 (\$690.00)
- Student (no icebreaker, lunch or banquet) (\$60.00)
- Ithaca local citizen (no icebreaker, lunch or banquet) (\$90.00)
- KOMPASS (\$495.00)
- US/Canada government employees (planning, economic development, elected officials, etc) & university faculty. (no lunch or banquet) (\$125)

#### TICKETS ARE SELLING FAST! TO LEARN MORE & TO REGISTER FOR PODCAR CITY: ITHACA, VISIT: www.podcar.org/ithacaconference

#### **SUNDAY SEPTEMBER 14**

4-6pm Ice-breaking reception at the Johnson Museum of Art

#### **MONDAY SEPTEMBER 15**

9.30am Opening address - Mayor Carolyn Peterson, Ithaca

**Morning theme:** *Lessons Learned and need for change* Introduction by Magnus Hunhammar, CEO of IST

Sustainable Communities and Regions - Joan Bokaer, Ecovillage and Gay Nicholson, CEO Sustainable Tompkins. Need for Joint Efforts - Hans Lindqvist, former member of European Parliament, KOMPASS Group Chairman. A Southern California Perspective - Gus Ayer, City Councilmember, Fountain Valley. Lessons learned - Robbert Lohmann, 2Getthere, Netherlands. Peak Oil and Renewable Energy -Debbie Cook, and Ron Swenson, CEO Ecotopia

Afternoon theme: Evolving Projects and Solutions Introduction by Larry Fabian, ATRA

The Masdar initiative - Luca Guala, Systematica, Italy. City of Daventry, UK- Malcolm Buchanan, UK. Dunsfold Park and Masdar plans - Martin Tillman, UK. Swedish Initiatives -Magnus Hunhammar, Sweden. The Encitra Virtual City Initiative - Crista Lopes, University of Californa, Irvine

#### Panel Discussion:

Introduction by David Muyres, Artcenter, Pasadena

#### **TUESDAY SEPTEMBER 16**

#### \*\* Track A - Cities for the future \*\*

Santa Cruz, CA; Fountain Valley, CA; Ithaca, NY; Varmdo, Sweden, Are, Sweden, Stockholm, Sweden, Daventry, UK, and other cities, including members of KOMPASS.

#### \*\* Track B - Research and Innovation \*\*

Morgantown WVU, 35 years Later - Vishakha Maskey, Extending PRT Capabilities - Ingmar Andreasson, KTH Sweden, Princeton Studies - Alain Kornhauser, Transportation financing paradigm shift - Christer Lindstrom & Frost Travis, SIKA Study - Kjell Dahlstrom, Vinnova Study - Magnus Hunhammar - Discussions - What's next in research?

**Historic State Theater** - all attendees - Introduction by Jacob Roberts, Connect Ithaca, David Pimentel - *Biofuels and Transportation*, John Hogan - *Control System for Spaceship Earth* - Panel Discussion, moderated by Jacob Roberts, Connect Ithaca

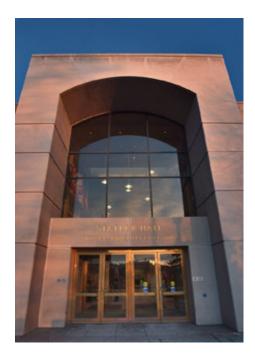
Closing Speech - Christer Lindstrom, IST

# **EYE ON ITHACA:** STATLER HOTEL AND CONFERENCE CENTER

Host to **PODCAR CITY: ITHACA's** Monday Plenum session, September 15th from 9:00am – 5:00pm, and the Podcar Banquet that evening, Cornell University's Statler Hotel and Conference Center is the centerpiece of the renowned Cornell University School of Hotel Administration.

Founded in 1922 as the first collegiate course of study in hospitality management, this Ivy League institution has the largest full-time faculty, the most extensive curriculum, and the most advanced facilities in hospitality management education. Students and staff of this prestigious institution will cater to the needs of Podcar City Ithaca attendees throughout Monday's program.

The Statler complex is located on the Cornell campus, within a short walk of the bustling Collegetown district, Cornell Arts Quadrangle and breathtaking views of the city and Cayuga Lake.





Alice Statler Auditorium

Carrier Grand Ballroom

Statler Hall Atrium

### News for US and Canadian government employees

Because of the generosity of our sponsoring organizations, the Podcar City Ithaca is able to extend a reduced cost registration fee of only \$125 to all professionals in public service, employed by local, state and federal governments, as well as regional MPO's and academic institutions in the US and Canada. We are pleased to make the conference available to those policy makers who will most directly shape the future of transportation and land use, and welcome your input and participation. This reduced fee covers the entire conference program, except the catered lunch and banquet on Monday September 15<sup>th</sup>. To attend these events, tickets can be purchased from the conference website at time of registration.



This program was made possible by support from the Tompkins County Tourism Fund