



CONFERENCE NEWSLETTER #2 – August 24, 2009

BREAKING NEWS:

Swedish Infrastructure Minister Opens PodCar Station Exhibit at National Museum of Science and Technology

Stockholm

On Monday June 08, Swedish Infrastructure Minister Åsa Torstensson revealed a portable PodCar station complete with a Vectus Pod, a compact section of track, cozy lobby with flat screen tv's, and a film room projecting a virtual trip on a **Vectus PRT** network from the perspective of the passenger.

While removing the curtain and unveiling the virtual, nonetheless designer, Pod-station to the public, Ms. Torstensson (*sounding very upbeat at the ceremony*) made it known to those in attendance, that from her perspective:

"We need new climate-smart transportation systems that complement the old and that meets new travelers' demands for speed and convenience...PodCars combine public transport efficiency with the car's freedom."

The PodCar station, sponsored by the Swedish Rail Agency, Banverket, will be further displayed at various international gatherings and conferences, as well as other places that have expressed interest in this form of eco-transit.

Banverket is currently studying the feasibility of implementing a PRT project for demonstration and commercial use in Sweden.



Banverket PodCar Station unveiling



Åsa Torstensson

TIMES ARE SERIOUS ~ *what has PodCars to do about that?*



Letter from Christer

In today's newspaper, I read that the out-pouring of heavy metals into the oceans' water is causing major problems for the various fish species; this is a very serious issue and scientists are increasingly worried.

The news from financial markets, the car industry and overall consumer reports are becoming more and more bleak; we humans are facing a new world with extremely serious issues ~ all created by ourselves.

So what about PodCars, what's the connection?

The very foundation of the idea behind PodCars is the *strong link* – the physical internet – and with the clean connectivity this new transit product provides, we can all begin to do much better, in so many ways.

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PODCAR.ORG/COP15

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Letter from Christer continued...

I believe that the prospect of using tens of times less energy and natural resources to move us and our goods more freely and efficiently is worth the commitment to further research and investment in PodCars worldwide.

Instead of having to produce millions of high maintenance and costly vehicles that serve an average of one single passenger per trip, and spending most of their time sitting in parking lots doing nothing other than losing value and destroying our planet, we could produce far less, maybe hundreds of times less PRT vehicles, and yet enjoy a better overall transit experience, from origin to destination, for *more* people and the various things we ship from here to there. Also, each trip would use far much less energy per person than any other form of transportation, produce nearly zero waste, and source its energy from the sun, wind and water; *not middle earth*.

Maybe, after all, we won't need to continue to extract oil and emit its toxic byproduct into the atmosphere; further destroy the oceans with the mining of heavy metals for batteries; and to continue to put ourselves into the tedious daily commute of being stuck in our car, behind all of the other stuck cars, as we work to solve our world's ongoing transit conundrum. In addition, the loss of time and potential human energy lost in traffic could be used for much more important things - to care for children and elderly, to produce healthy local food, to live in a way that is much more productive and rewarding than maintaining the status quo of a gas or lithium/led based transit product that will certainly continue to degrade the lifestyle and environment of our children's future.

If any of the PodCar ideas and promises made are even remotely possible, it is our duty to ourselves and future generations to do all we can to investigate it as thoroughly and critically as we possibly can. And that is exactly why we now call you to come to the **3rd Podcar City Conference** in Malmo, Sweden. If you have any interest in making a positive difference, please come; if you have something important to share about how to make a more clean, green and sustainable (transportation) future come true, we need you.

Christer Lindstrom, Founder
Institute for Sustainable Transportation

INDUSTRY PROFILE:

ATS's *ULTra* PRT TAKES ON HISTORY

The dynamic British company ATS, Advanced Transport Systems, Ltd., is perhaps better known by the name of its PRT product, *ULTra* -- for Urban Light Transit.

Naming formalities aside, ATS has been drawing lots of global media and transportation industry attention lately as its premier commercial installation is readied for regular public service before year end in a very high-profile setting at BAA's London's Heathrow, the largest of the three major airports serving the UK's capital region; still flying high on 19th century transit breakthroughs!

At the successful *PRT@LHR* conference held in April, BAA officially introduced their innovative transit system. In advanced transport circles, few doubt that ATS has become big time as their product becomes more and more relevant in a World Market thirsty for Sustainable Transport.

The sharp new *Ultra* is very efficient and accessible – an essential set of features for rapid transit at an airport where so many people come through for business and pleasure.

Americans should be able to experience this new PRT as they pass through Heathrow this December on their way to attend the **Podcar City: Malmo Conference**, during **COP:15** (see *Top Story p.4*)



ULTra Docking Station. Graphic Animation



Photo of ATS ULTra PRT Track at Heathrow



Martin Lowson is on far Right



Cardiff Wales Test Facility



inside the ULTra PodCar



Rendering of ULTra station at Heathrow

ULTra

INDUSTRY UPDATE Continued...

The Low-Down on Lowson

ATS the company and *Ultra* the product are both closely associated with Professor Martin Lowson, the charming and diplomatic genius who started this high-tech green company after doing much research on land mobility in the 1990s at England's University of Bristol; his background is in aeronautical engineering.

Through more than a decade of diligent work, Lowson moved his PRT concept to prototype and then to final design and engineering, then on to simulation and testing at a facility in Cardiff, Wales. He taught for many years and had notable success up to and through the Millennium in attracting a stream of grants from various governmental agencies and foundations, culminating in *Ultra* as a commercial reality.

Of course, Lowson built his design collegially with much feedback from thinkers and experimenters in England and abroad. Britain had early PRT pioneers in the 1970s – Cabtrack and Loder are but two of them, but their lights went out, much as at Boeing and Ford in the US. A trickle of more recent PRT efforts, however, has lived on in England: for example, WGH has had commercial success with low-grade people movers capable of upgrade to PRT.

Big Time Designs

ATS has also become Big Time in another way, namely through corporate BAA. The well-endowed British Airports Authority is both a customer and now owner of the *ULTra* shuttle at Heathrow's new Terminal 5. BAA became so impressed with ATS's intellectual property that they bought a minority share of it. There are several follow-on projects in the works within the multi-airport world of BAA.

ATS, however, aims for markets broader than airports. The obvious one is vastly more ambitious -- urban transit -- as envisioned in plans for the small city of Daventry and of university town Cambridge, and concepts for dozens of other small cities (or as feeders to metros in larger cities) in England and elsewhere around the world. The potential market for *Ultra* and other forms of PRT is huge. It is not without challenges and barriers. One of them, of course, is aesthetics. How can *Ultra* fit into urban environments both visually and operationally? Elevated guideway and stations raise objections and concerns. What answers does ATS have?

Creative Designs for Historic Bath

...and ATS's answer is: *ask the world of urban architects!*

ATS has challenged designers around the world to create context-sensitive *Ultra* implantations in the charmingly historic English city of Bath, a center for bathers since before Roman times. With support from the European Union and the US-based *Architect's Newspaper*, a call went out just last month. Submissions require a \$50 fee and are due March 13, 2010. A high-level jury will announce the winner on March 21.

Much will happen between now and then. Come to Malmo in southern Sweden to learn more at **PodCar City: COP 15** in December. You will learn the latest on *Ultra* at Heathrow and Bath

-- and elsewhere?

TOP STORY COP:15 What's the Connection | Date & Place?

Take Action and Make Contacts!



On December 7-18, 2009, delegations from the 192 countries who are party to the UN Climate Change Convention will take part in a particularly important event focused on shaping global climate policy. The title of the conference, COP:15, was not, as it seems, referring to COPenhagen, its host city, but to a literal name ~ the "Conference Of Parties".

The very first COP meeting (COP:1, *if you will*) convened during the legendary 1992 UN Conference on Sustainable Development in Brazil; or the "Rio Summit". At this meeting, a joint resolution to secure fairness and balance in climate policy was adopted, eventually leading to the "Kyoto Protocol" - a world-wide code of behavior which aims to stabilize the amount of greenhouse gases in the atmosphere at a level that prevents dangerous man-made climate changes from occurring.

These vows of protection and positive actions toward climate repair made almost twenty years ago in the original Kyoto text are only valid until 2012. Therefore the thrust of COP:15, Copenhagen, is to generate a new focus, framework, and language for what will eventually serve to replace it. The aspiration of the Danish government has been stated to be that COP:15 will result in an ambitious global agreement incorporating *all the countries of the world*. From the official website:

"Developments in the world since the Kyoto Protocol was negotiated in 1997 show that a new agreement is needed. China has replaced the USA as the largest emitter of greenhouse gases, and the price of oil has soared. This is a reminder of the fact that fossil fuels do not merely pollute; they are also a source of energy whose reserves are constantly being reduced."

Needless to say, addressing current and future transportation issues is a big piece of the climate change pie, and the **PodCar City Conference: Malmö** (directly across the bridge from COP:15) has been organized, in part, to expressly make sure that the United Nations, all specialized agencies and related organizations (such as WMO, UNEP, IPCC, the World Bank, GEF), news media, and the wide-ranging delegates from all corners of the planet are made aware of the promising outlook PRT offers to those entities working on creating viable transit solutions for a clean and green future.

The Danish Infrastructure Commission, for example, has pointed out that the transport sector currently accounts for approximately 25% of Denmark's CO2 emissions and that they face significant transit-related challenges for which long-term planning is essential. Today, taking the lead by walking the walk, the Danish Government is currently working towards creating a comprehensive plan to build a better connected Denmark; both for its people and the environment.

Although traffic has increased by more than 50% in the last 20 years, and is expected to continue to increase at the same rate in the future, the Danish government is now working proactively to combine initiatives focused on economic growth and the expressed need for uber-fast communication and high mobility, with a better overall living environment, a more active preservation of nature, and additional, progressive, legislative measures to help combat global climate change.

Just as at the Rio Summit, the COP:15 event will be much more than a conventional, off-mundane, UN conference. Many organizations, municipalities, businesses, NGO:s, media, and enthusiastic groups will gather in the tens of thousands for a global *mega~mingle* to learn about ways in which citizens, companies and countries, like Denmark, are making a positive difference through bold action.

So, while COP:15 is taking place in Copenhagen, those who are interested in learning more about sustainable forms of transportation are invited to gather at PCCC3 across the bridge in Malmö, Sweden, and not miss the unique opportunity to learn about viable, climate friendly, transit options, such as PRT / PodCars, as well as to discuss other healthy ways in which to organize city life.



Speaker Profile: 5 Questions for Kjell Dahlström

Q1. Please give us a little information about your own personal, educational, and professional background. What were some of the steps you took to get to where you are today? What was your path to SIKA?

I am an architect as basic academic career, followed by a PhD in architecture on the interplay of traffic and settlements, where-in I showed the benefits of sharing the use of cars, not only the ride. I went into politics, municipalities of Lund (nearby Malmö) and Stockholm, and the Swedish Parliament; I served as party secretary for the Green Party for almost 15 years. Then I have been Director General 5 years for the National Public Transport Agency (Rikstrafiken) and then another 5 years in the Swedish Institute for Transportation and Communications Analysis (SIKA). Just recently I was asked to take on the mission to explore the wish among Swedish municipalities to develop pioneering PodCar lines/systems within a few years of procurement and planning procedures. I have elaborated thinking and ideas on transportation in the maturing car society through almost 4 decades.

Q2. Especially for our non-Swedish readers, please give us a summary statement of what SIKA is; what function does it provide your citizenry; and who does it ultimately report to? What are the mission, history, and core objectives of the organization?



Kjell Dahlström

SIKA is a pure state agency reporting to the ministry of enterprise and communications. SIKA is the official keeper of all transportation statistics, including also casualties and fatal deaths due to traffic, and SIKA reports this to the EU Eurostat as well. SIKA has the task to measure and analyze economic matters throughout the whole transportation sector in a completely non-biased way regarding different means of transportation – it is evident that the rise of PodCar system possibilities found a fertile soil in SIKA. From having been the arbiter between modes of road and rail transportation plus sea and air for 10 years, SIKA changed under my leadership to challenge the established "ways and rails" and "common understanding" of how to deal with transportation. We questioned this and it caused some unease among the knights of trains and cars, I believe.

Q3. Please give a short description of how "PodCars" got on your organization's radar (also - what? when? who?)? Can you give us a taste of what the initial discussions and debates around this new transit technology were like at SIKA, at that time?

Well I just answered this question in the previous answer, didn't I? I could add that the production of the animation film Bubbles and Beams was done as a contribution to a forecasting the future conference at the invitation of my minister of infrastructure Mrs Åsa Torstensson. The film was moving things ahead which were excellent.

Q4. According to SIKA's recent analysis, study, and reports on PRT - can you give us a synopsis of where SIKA feels the PRT "industry" is, and what are the major barriers still to be overcome for full-scale implementation?

Well, I am not in charge of SIKA any longer, so I answer freely as the formally retired person I have become. Pioneering projects are now crucial. This will show the need for higher thoughts of radical changes in technology, research and development of completely new ways of physical transportation. The barriers of peoples' stiff minds are always around and a good exercise for peoples' creative minds to come about.

Q5. What is one (1) thing you (and/or SIKA) would like to see transpire over the next 12 months to help facilitate PodCar development in Sweden, and around the world. Is there a single "lynch-pin", or "water-shed" event, law, action, investment, etc., that could really help to turn the tide in favor of PRT as a sustainable and viable mass transit product, ready to be deployed in cities all over the world?

Yes – a successful pioneering project, followed by several more to inspire creative minds to go ahead strongly.

Industry Update: ATRA LOOKS TO 2010

by Larry Fabian, ATRA Events Coordinator,

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The Advanced Transit Association is excited about prospects for advances in 2010. The Malmo conference looks to be one of the gateways to breakthroughs next year. Interest in PRT – whether classically robust on exclusive guideways or free-ranging robotic vehicles feeling their way over embedded route points – is surging. The tide has turned: 2010, here we come!

Stan Young took over as president this year, but he inherits the perspectives of members who have been at this since its founding in 1976. ATRA has been persistent in the face of intense opposition to advanced transit. ATRA has become increasingly active in recent years. Here is an update on two current projects.

Morgantown PRT Design Competition

ATRA has cooperated with West Virginia University on technical visits and seminars about its fatality-free, large-vehicle PRT over the years. Landscape architect professor Claudia Bernasconi organized a student design competition this year. She asked students to focus on the downtown block that contains a truly urban PRT station (the other four are clearly University turf). How can its relationships to Morgantown's small but active downtown district and the nearby riverfront be improved? Scores of students from WVU and others universities took interest. Seven full submissions were received.

On June 25 a jury composed of landscape architecture professor Peter Butler, Morgantown's chief planner Chris Fletcher, PRT director Arlie Forman, progressive City Councilor Jenny Selin, and your reporter met. With guidance from Claudia, away in her native Italy and headed for a new teaching post at the University of Detroit Mercy, the jury selected the three best concepts,

The images and narrative by Chris Mitchell of WVU was judged the most relevant and creative. They project the vision of a free-flowing pedestrian plaza themed to water erosion, with many gathering places. Straight lines and a grid highlight the upper portion near the PRT station. Rigid, rough stairs are proposed down the slope that leads to the river. ATRA delivered to Chris a modest \$300 token of appreciation. Contact him at cmitch2@mix.wvu.edu.

\$100 awards were sent as honorable mention to Cornell University student Huicheng Zhong, who proposed a mezzanine addition to the station. WVU's Matt Gryskovich had the most abstract and esoteric visions with an industrial and artistic feel in a grid of geometric spaces and dynamic grass sculpture.

A Nexus in Boston-Cambridge

Another current ATRA project will literally take place between Harvard and Boston University in eastern Massachusetts variously known as the *Hub of the Universe*, *Beantown* and the walking city with the worst driving in the country. Teams of creative participants will be asked to envision PRT connections between a set of knowledge institutions and the potential to create a sustainable node of development in or atop a large tract of rail yards and highway interchange.

This charrette – a brainstorming session of stakeholders and others, but with no political baggage – will take place October 9-10. Bike tours are being offered the two weekends before. Tours of other Boston transport successes – the Orange Line through the South End and the Greenway created by the “infamous” Big Dig that removed an ugly elevated highway from the heart of historic Boston will be available. Registration is limited.



Boston Harbor

Eye on Malmo: [From *MUMFORD* to *MALMO*]

Sunshine! These days Sweden ardently basks in super-long days of sunshine.

Far enough north, Scandinavians truly the Land of the Midnight Sun. July and August life schedules shift to absorb the sun-sweetened green of outdoors refreshed by breezes over countless lakes and sea shores. Summer-time Swedes soak it all in and try to store up mental sunshine for the inevitable darkness of winter. For now, in August, no need for candles as psychic props.

Malmo is Sweden's third largest city, located in the south across from Copenhagen, where the sun does set even on June 21. There are five whole hours of daylight in December.



Lewis Mumford

In summer most Swedes abandon their well-ordered cities and comfortably designed towns that are so admired by designers, architects and city planners around the world. Design in general is a big thing in Sweden. From screw-drivers to furniture, from fashion to movies – Sweden has a reputation for design excellence, including its cities. This made *Svenska* special to twentieth-century urban thinker and author Lewis Mumford, a towering figure in American planning and thought. He observed the mechanization of our lives and the motorization of our burghs. His most widely read book, the ambitiously titled: *The City in History* helped his ideas shape the structure of the American metropolis.

Malmo, December 8-10, 2009

Urban history will be made in Sweden this coming December at a professional gathering on sustainable urban mobility and structure – the 3rd International Podcar City Conference. Organized by IST – the Stockholm-based Institute for Sustainable Transportation – and ATRA – the Advanced Transit Association, the event will work to inform and get informed about a new 21st century form of mobility known as PodCars or PRT. The daylight will be short, but candles will waft their welcoming warmth, and saunas will beckon to chase away chills.

Were he alive, Lewis Mumford would be in Malmo and at the concurrent COP 15 Global Climate Change conference in nearby Copenhagen this coming December. He would be in his element with the hundreds of cutting-edge urban thinkers, designers, analysts, and investors. Even if only in his idea that our communities should be planned to be safe and green, he will be there in Malmo defining development strategies, new business models for mobility, and paths to a more sustainable future for the second decade of the 21st century.

Mumford in Malmo! It's a topic for conversations at the Ice-Breaker to be held in Spanish architect Calatrava's Torso Tower – a self-twisting skyscraper that is one of Malmo's landmarks. There's also the sixteenth-century Radhuset (City Hall) and the Malmo Castle. Please join us and help redefine the balance between Man and Machine in a world Scandinavian by design.



Calatrava's Torso Tower

Malmö is the capital of Skåne County with a total population of about 250,000. It was one of the most industrialized towns of Scandinavia, but until the turn of the millennium it had been struggling with the adaptation to post-industrialism.

Like many European cities, Malmo contains many historic buildings, squares, and parks, and a lively commercial center, yet recently it has transformed into a new city, with impressive architecture, new biotech and IT companies, and throngs of students attending Malmö University. During the last few years, the city has focused sharply on enhancing education, arts and culture industries, and was also ranked #4 in *Grist Magazine's* "**15 Green Cities**" in '07.

Malmö is very close to Copenhagen, a City of 2 million people. Since the bridge was built between the cities, the area has grown into an exciting bi-national cultural melting pot with strong connections through meetings, marriages, businesses, education and culture.

These two city major centers are only a sustainable and fast train ride away, something that people from both sides enjoy regularly, regardless of age and background. Feel free to enjoy this unique experience while at PCCC3!

Motto for Malmo: Diversity, Meetings, Possibilities

PRELIMINARY PROGRAM

Please note: All presenters and scheduled times are subject to change. Registered attendees will automatically receive updates regarding Venues and Speakers.

TUESDAY
December 8

5.00-7.30

Ice-breaking event at the **Turning Torso**, Limited capacity (75 people)

WEDNESDAY
December 9th

All activities Wednesday and Thursday are at **Malmö University**, main lecture hall

Press conference

8.30

Coffee and Registration & Exhibitor Display

9.20

Moderator & Management presentation, KOMPASS, Sponsors
Official opening, Mayor of Malmö, Swedish Secr. of Transport & KOMPASS

10.00

MORNING THEME – State of World Mass Transportation and Possibilities

10.15

CO2 Transportation and the Energy – TBA, UN Energy Council

10.40

The Nano Car – Mobility opportunity or Challenge – V Sumantran, former

11.05

TATA Executive, India

11.25

Three Podcar Cities – K. Dahlström, Swedish Ministry of Enterprise

11.45

The Silicon Valley Challenge - Hans Larsen, San Jose, USA

Industrial Outlook for Podcars - Nick Ford, Frost & Sullivan, UK

12.05

***** **Lunch** *****

AFTERNOON THEME – Implementation, Operation and Research

1.10

ULTra at Heathrow – NN, BAA

1.30

Podcars at Masdar – R. Lohmann, 2Getthere Netherlands

1.55

Vectus system in Uppsala – Jörgen Gustafsson, Vectus Sweden

2.20

Morgantown 35 years of operations, Visakha Maskey, WVU USA

2.45

Panel debate – Moderated by NN, EU DG-Tren

3:00

Exhibitors Display & Coffee

3:30

Open Source Control Software – Gabriel Elkaim, Prof. UCSC

3.45

Modelling travel data- G. Tegner, WSP Sweden

4:00

Modelling and Software Innovation – Prof. Ingmar Andréasson, Sweden

4.20

Uppsala Virtual Travel Center – Prof Crista Lopes / Prof CJ Engström

4.40

USA/Sweden

Day 1 Panel Discussion - Moderator David Muyres, CWR USA

7:30

DINNER with sponsor presentations and special entertainment event

Keynote Speech TBA

THURSDAY

December
10th

Thursday's program is divided into two break-out sessions and a vendor display. At 1:00 pm, all sessions will convene together at the the main lecture hall again.

9:00 **TRACK S 9.00-1200** KOMPASS & Real Estate invitation to attending Cities, TBA
 TRACK R 9.00-12.00 ATRA Program: Innovation and Research Program TBA.

12.00 AFTERNOON – WORLD OUTLOOK

1.10 1.10 Health Effects on Transport – NN, WHO
1.35 1.35 DG Tren Program for Sustainable Transportation – NN, EU
2.00 2.00 DOT Program for Sustainable Transportation – NN, DOT USA
2.25 2.25 World Bank Program for Sustainable Transportation – NN, WB
2.50 2.50 Let's work together – Christer Lindström & Magnus Hunhammar

3.00 **Exhibitors Display & Coffee**

3.40 **FINAL PANEL DISCUSSION** – Moderator Hans Lindqvist, KOMPASS

*THE PODCAR CITY™ Conference is an initiative of the Institute for Sustainable Transportation (IST) presented by KOMPASS, to **gather major stakeholders**, affected by today's transportation issues at all levels. The aim is to have an **open and creative debate** on what Podcars (Personal and Group Rapid Transit) are, what the vendors claim to be possible, what communities are looking for and what critics and supporters have to say. The conference will hold several **seminars** and **work programs**. The main theme is **how Podcars can contribute to climate change issues**. This is the third yearly conference, in cooperation with Advanced Transit Association (ATRA).*

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