

Podcar City 9

Innovative mobility in the era of automation

4-6 november 2015, Silicon Valley, California

Silicon Transportation!
www.podcity.org

AUGUST

#3
2015

CONFERENCE NEWSLETTER

FOR HOTEL UPDATE
PLEASE SEE PAGE 3

In this issue: Conference update - Robocars & ATN - ATN/Podcars The Missing Link - From one Chair to the next in the KOMPASS Network - Spartan Superway development - Podcar & Driverless car news - Conference Program Schedule & Speakers - Registration & Hotel Information

A WORLD OF EXCITEMENT!

Things are coming together nicely. We now can present a full program and an impressive list of speakers from all over the world and exciting topics for the conference. Please see the last three pages for an overview of the current program, topics and speakers.



Systems development, what is taking place today? - Driverless cars, shared cars and taxis, consequences and limitations - Driverless transit, trends and consequences - Energy sources, consumption, oil independence - Multi modal travel with smartphones and services - Station area design - Accessibility - Land use cityscape, parking - HSR and feeder systems - Campus development ...

...and several more themes underway. We welcome you to much more than a conference - Podcar City 9 is a platform for interaction, education and immersion into the next step in transportation — on a global level where automation and planning have the critical impact on what our future in cities will look like.

Aurora Lindstrom, Conference Coordinator



INTERNATIONAL ATN
PROJECT AT SAN JOSE
STATE UNIVERSITY

Swedish, Brazilian, French,
Korean and US students in
San José, summer 2015.
More on page 6-7

AUTONOMOUS CARS - HEAVEN OR HELL?

By Christer JP Lindstrom, co-founder INIST

Will self driving autonomous cars on regular roads actually lead to even more congestion? There are ideas to let your car go and buy coffee for you, get the groceries and pick up your family and friends without you ever leaving your home. Where does this lead us? In my opinion there is a substantial risk of adding even more rubber to the road, introducing automation that spawns new social behavior.



Wikimedia photo by order_242, Chile

The automation of cars might be as much of a blessing as a curse, deepening the huge transportation issues we already face today. And where is the automation in public transportation? Everyone seems to be going down the private path.

Time to rethink.

New Chair in the KOMPASS Network

In May 2015 the KOMPASS Network voted in a new Chair after the resignation of Mr Hans Lindqvist who headed the first seven years of the Network. We now welcome Ms Ann-Christin Frickner-Larsson and look forward to work with her and a couple of new board members. (cont. on page 2-3)



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Images from events displaying the Podcar technology in Sweden for the last five years



EU Summit in Åre, Sweden, 2009



Display at the Royal Institute of Technology, 2011



Sodertälje study, display for elections, September 2014



Day of the falls, Trollhättan July 2015

From one Chair to the next in the KOMPASS Network

Ann-Christin Frickner Larsson

- It is time for new and green improvements to public transit.

I am very happy to represent the KOMPASS Network as our new chair. Today many cities are facing big challenges in order to become more sustainable. We see a need for focusing on better planning for people in all housing and transit development where the meetings between people are in focus. We want innovative, business friendly environments and space for jobs and new ideas.

A new mode of transportation makes it possible to park the car for our everyday commuting. We need better solutions that strengthen existing public infrastructure and have the ability to adjust to flexible travel needs.

I see Podcars and ATN technology as a great opportunity for growing cities in need of environment friendly and cost effective solutions. The fact that Podcars can free up valuable city space for development and meeting places, enhance biking and walking, strengthen the benefits of self driving cars and not least reduce the need for parking are all factors that speak for what I think we very much need.



It's high time for Podcars!

Ann-Christin Frickner Larsson
Chair, KOMPASS Network



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KOMPASS Former Chair Hans Lindqvist

Thank You for seven great years with KOMPASS

Since we started KOMPASS we have increased the number of participating cities from zero to 14. During that time we also have participated and supported a series of conferences in Sweden, United States, Denmark and Germany. The role of KOMPASS in the Swedish efforts to study and implement a sustainable and effective transportation system has been important and successful.

Our newsletter, Destination, has been distributed with 7-8 issues for several years and is attracting a larger and larger number of subscribers.



I am very pleased to see Ann-Christin Frickner Larsson as new Chair for KOMPASS. Her passion and good work in her own city Upplands Väsby will benefit our network greatly.

My interest in ATN technology will not stop here; we need this technology to meet the demands for our future cities. The next International Conference on Climate Change in Paris this year is a great opportunity to inform about good technology for transportation using renewable energy.

Again, Thank You all for your work and I wish the new board of KOMPASS all the best.

Hans Lindqvist
Former Chair, KOMPASS Network

*NOTE: KOMPASS IS A SWEDISH LOCAL GOVERNMENT ORGANIZATION
PROMOTING PODCARS AND AUTOMATED TRANSIT NETWORK TECHNOLOGY.*

HOTEL UPDATE

We have selected two hotel options for attendees. Please see prices and information on registration at the hotels below. The Conference has chosen Maple Tree as the main conference hotel.

MAIN CONFERENCE HOTEL

Maple Tree Inn ****
711 East El Camino Real
Sunnyvale, CA
Tel: +1 408 720 9700
Homepage & Contact:
www.mapletreeinn.com

Pricing: \$189 + tax
Booking code: Group code 785
Available with this code Nov 3-7
Note: Cut-off date is October 3

ALTERNATIVE HOTEL

Americas Best Value Inn ***
1012 West El Camino Real
Mountain View, CA 94040
Tel: 650-961-6720
Homepage & contact:
www.abvimountainview.com/

Pricing: \$159 + tax (single)
\$185 + tax (double)
Booking code: PCC9
Available with this code Nov 3-7
Note: Cut-off date is October 3



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VOLVO promotional
images of self driving
cars



PROJECT PERSPECTIVES - ROBOTIC CARS



By Larry Fabian, Trans.21

Global transport strategist Lawrence Fabian of Trans.21 takes a broad look at urban mobility infrastructure developments and sees dynamics in a blurred dual-mode future.

There is no doubt that the reality of robocars is upon us.

Google is but one of many deep-pocketed companies developing the necessary software and contingent hardware. World auto manufacturers are jockeying to keep up with and form corporate alliances. University classes and programs are engaging students at all robocars levels, using different names. The current "autonomous vehicle" moniker is hardly likely to stick in our ever-evolving techno-English.

The question isn't whether robocars -- and robo-vans, robo-buses, robo-trucks and robo-SUVs -- will come into our future. Rather, it is how fast and with what trajectories street vehicles will become smarter and safer. How should the public sector react? Analysts and investors are eying road automation opportunities and high-growth startups.

Many ATN proponents are uneasy, arguing that robocars don't solve congestion and parking problems. Embracing the classic notion of PRT, they see small vehicles confined to a guideway network that has to be extensive to be useful. This fixed infrastructure is costly and perhaps offensive if elevated, as usually proposed. The payback lies in the guideway's ability to protect, channel and power a large fleet of vehicles at high speeds. PRT service can be faster than street traffic. It is also inherently safer. Guideways and stations can easily incorporate solar power collectors.



Dual Mode Concepts Bridge the Gap

The good thing about this clash of ideas is that it lifts our thinking to a long-range level. What are current and future modal options? What kind of transportation and community life do we want? In seeking answers to these questions, policy analysts and investment advisors in urban (land) infrastructure make trade-offs with all kinds of environmental and economic factors.

Since the ATN scenario is purely hypothetical, so too is dual-mode transit on a large scale. DMT is simply an open PRT system. Vehicles are designed to be able to exit the guideway and run on roads or other pathways powered by batteries. The speed and range limitations of batteries become irrelevant: the guideways recharge them. Like PRT, DMT can be pursued at metro, regional, mega-regional and national levels.

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LEA ELLIOTT

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ATN/PODCARS, THE MISSING LINK

By Rod Diridon, Sr., Emeritus Executive Director
Mineta Transportation Institute

The Mineta Transportation Institute has had confidence in the Podcar concepts for more than a decade and has conducted related studies and supported conferences throughout the US and Europe. It's time to move beyond concepts and models and to create practical applications.



Our Earth is growing smaller with eight billion people to host in only a few years. All of those will require mobility. That means moving beyond automobiles, highway congestion, and rampant air pollution and instead relying more heavily on new, more sustainable transit modes. It also means using every resource in our transportation tool kit – and that must occur very quickly.

Some of the traditional tools of the past 100 years have become obsolete. In other cases, those tools are still good but used in the wrong way. One excellent example is the reemergence of rail but in the form of electrically powered high-speed trains to cover intermediate distances between 50 and 800 miles. Throughout the world, except in the US, reliable, safe, and clean high speed rail replaces short-haul air trips which are expensive, inconvenient, and exacerbate climate change. Though California is showing the way for the nation by building the first North American system, the lack of integrated feeder service at most stations is painfully apparent.

Among the most serious gaps is the first and last mile connection supporting the higher throughput rail and express bus modes that stop infrequently so serve only one stop in a large complex. For heavily used high-speed, commuter, metro, light rail and rapid bus lines to operate optimally, riders must have convenient feeders to the stations on the housing end and a seamless connection to jobs on the employment end. That is especially true when serving sprawling industrial or commercial parks, airports, special event venues, universities, hospitals, and other major trip generators. That last mile from the station through interminable parking lots and blocks of intervening developments frustrates the riders' use of the major throughput modes.

That last mile gap, especially in the rapidly growing US sunbelt areas with typically lower-density, spread out developments, is transit's Achilles heel. Automated transit network (ATN) applications such as Podcars seem an optimum way to meet many of those first and last-mile challenges, integrating effectively with existing systems while cost-effectively suspended over available rights-of-way. But the Federal Transit Administration, which will oversee the alternative analysis before providing construction funding, and local transit operators will not risk building a new mode without a proven operating example.

First operating systems are expensive to produce and speculative but absolutely necessary. The old adage is that a picture is worth a thousand words. The Mineta Transportation Institute expands on that by noting that an operating Podcar system could fill the first and last mile gaps, make the national transit systems irresistible, and catapult the US into sustainability. With highways nearing terminal gridlock and climate change in crisis, that game-changer is due!

SKYCUBE ATN System Suncheon, South Korea

Photos by Johan Englund
Noventus, Sweden



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Spartan Superway - a project where the future becomes present

The sound of a drill barely covers debates on Monday morning, because only two weeks remain for students to finalize details of their work. Prof. Furman gently passes between each group, promoting the latest innovations of each. It is the peculiarity of the Spartan Superway project: prototype with limitless imagination a way of transport for the cities of tomorrow.



Students from all backgrounds

Since June, more than twenty international students have been working in teams on each part of the overall project: to demonstrate the feasibility of a PRT system (Personal Rapid Transit). While the Swedish team is dealing with the cabin, the Korean concentrates on the suspension system and IT management of several cabins. The Brazilian and US are centered on a reduced scale complete circuit and a solar power supply for the entire system.

From DIY to Project Management

Working in a team requires discipline and Ron Swenson sets the stage for good communication all around. Students update daily a schedule, supplemented by a weekly meeting where everyone presents their advances. A "pink pig" label is present on an object? If no one claims it, it will be shelved! A desire to use a machine tool? Frank is always a source of technical advice! ->

PROGRAM OVERVIEW

WEDNESDAY NOVEMBER 4

10 AM - 3PM Student Charrette, Spartan Superway Design Center San Jose

4 PM Icebreaking Reception Spartan Superway, San Jose

THURSDAY NOVEMBER 5

9 AM Registration & Coffee

10 AM Official Opening and Keynote Speakers

12 AM Lunch at Venue

1 PM Plenary session: City & MPO Perspectives

2 PM Plenary session: Podcars in Operation

3 PM Break, Fruits

3.30 PM Session A - Urban Design with Podcars

Session B - Energy & Storage

4.30 PM Session A - HSR/feeder systems & Station Area Design

Session B - User Perspectives

7 PM Conference Dinner & Keynotes, Adobe House, San Jose

People and photos from previous years conferences



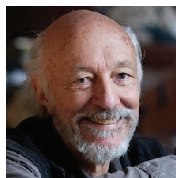
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FRIDAY NOVEMBER 6

9 AM	Session A - Driverless Vehicles - Trends & Consequences Session B - City perspectives
10.30 AM	Session A - System Developments Part 1 Session B - Communication & Visualization
12 AM	Lunch at Town
1.30 PM	Session A - System Developments Part 2 Session B - Student Work
2.30	Session A - Applicability of Podcars Session B - Procurements, Standards & Codes
3 PM	Break, Fruits
3.30	Panel Discussion Martin Lowson Award Ceremony Official Closing



Insight and Motivation

In this workshop of 800m², each day sees increasingly relevant ideas. Between numerical simulation and machining aluminum, everything is then performed. The Swedish are currently trying to mount their wooden cabin (full scale). Their plans were maturely reflected, but the little details are always the greediest in time! Staggered screws, last-minute adjustments, long finishes are sometimes a discovery for these students where they may need to change material or find a more powerful battery.

A long-term vision

Convinced and persuaded of the relevance of PRT systems, this is the objective of the Spartan Superway project. While this program presents a very good research experience for students, finished prototypes are then presented at several technical shows (Maker Faire, Steam Festival, Intersolar Exhibition). The idea is to meet local officials, sponsors or companies interested in this adventure. No doubt these people will one day turn into stakeholders of this project...



A human adventure

Unlimited innovation or investment in tomorrow's challenges, this success was started in 2012 at San Jose State University. It begs to shine internationally, combining partnerships and meetings that are already offering to this technology a promising future.

Pierre-Adrien Collet
X-IEPEF, ENPC (VET Laboratory)
July 2015



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CONFERENCE VENUE AND REGISTRATION



The conference will be held November 4-6, 2015 at the Center for Performing Arts in downtown Mountain View. The registration link is located at www.podcarcity.org. We also provide links for hotels and motels, transportation information, travel packages for groups and much more. Please see page 3 in this newsletter for Hotel information.

Contact:
info@podcarcity.org

Speakers as of August 10, 2015 (preliminary):

Alain Kornhauser, Princeton University, USA
Ben Tripousis, California High-Speed Rail, USA
Bengt Gustafsson, BeamWays, Sweden
Burford Furman, San Jose State University, USA
Caroline Rodier, UC Davis, USA
Claude Escala, SupraWays, France
Clement Solomon, Morgantown PRT, USA
David Holdcroft, ATRA Industry Group, UK
Doug Malewicki, SkyTran, USA
Eric Phillips, Lea+Elliott, USA
Fernando De Aragon, Ithaca MPO, USA
Fredrik Saweståhl, Tyresö, Sweden
Gary Hsueh, Arup, USA
Guido Schwager, Schwager-Davis, USA
Ingmar Andreasson, LogistikCentrum, Sweden
Jeral Poskey, Google, USA
Jim Beregi, Solar Transportation Technologies, USA
Johan Englund, Noventus, Sweden
Laura Stuchinski, City of San Jose, USA
Lucia Cristea, Peruggia, Italy
Luis Ferreras, Parsons Transportation Group, USA
Magnus Hunhammar, Kompass, Sweden
Matthew Lesh, Noblis, USA
Monica Zaruza, Australia
Nanzheng Yang, Tubenet, China
Nathan Koren, Podaris, UK
Neil Sinclair, CyberTran, USA
Nicolas Coulombel, Ecole de Ponts, France
Peter Lovering, BeemCar, UK
Peter Muller, PRT Consulting, USA
Rob Means, City of Milpitas, USA
Robbert Lohmann, 2getthere, Netherlands
Ron Swenson, INIST, USA
Sam Lott, Kimley-Horn, USA
Seth Hollar, EcoPRT, USA
Shannon McDonald, Southern Illinois University, USA
Sharon Feigon, Shared Use Mobility Center, USA
Stefan Bergström, Sundbyberg, Sweden
Steve Perliss, Lea+Elliott, USA
Susan Shaheen, UC Berkeley, USA
Tad Winiecki, Rice University, USA
Walter Kulyk, TRB, formerly DOT, USA
Włodzimierz Choromanski, Technical University of Warsaw, Poland



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