

Podcar City 8

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

To the next level!

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Automated Transit Networks (ATN): A Review of the State-of-the-Industry and Prospects for the Future

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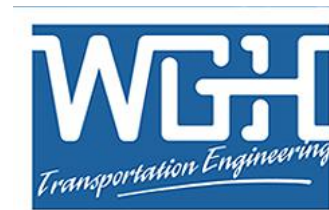
ATN is a subset of Automated Guideway Transit (AGT)

- 170 automated transit systems worldwide
- Only 5 have ATN functionality (next slide)
- Unique features
 - Direct origin-to-destination service with no need to transfer or stop at intermediate stations
 - Small vehicles available for the exclusive use of an individual or small group traveling together by choice
 - Service available on demand by the user rather than on fixed schedules
 - Fully automated vehicles (no human drivers) that can be available for use 24 hours a day, seven days a week
 - Vehicles captive to a guideway that is reserved for their exclusive use
 - Small (narrow and light relative to LRT and BRT) guideways usually elevated but also at or near ground level or underground
 - Vehicles able to use all guideways and stations on a fully connected PRT network

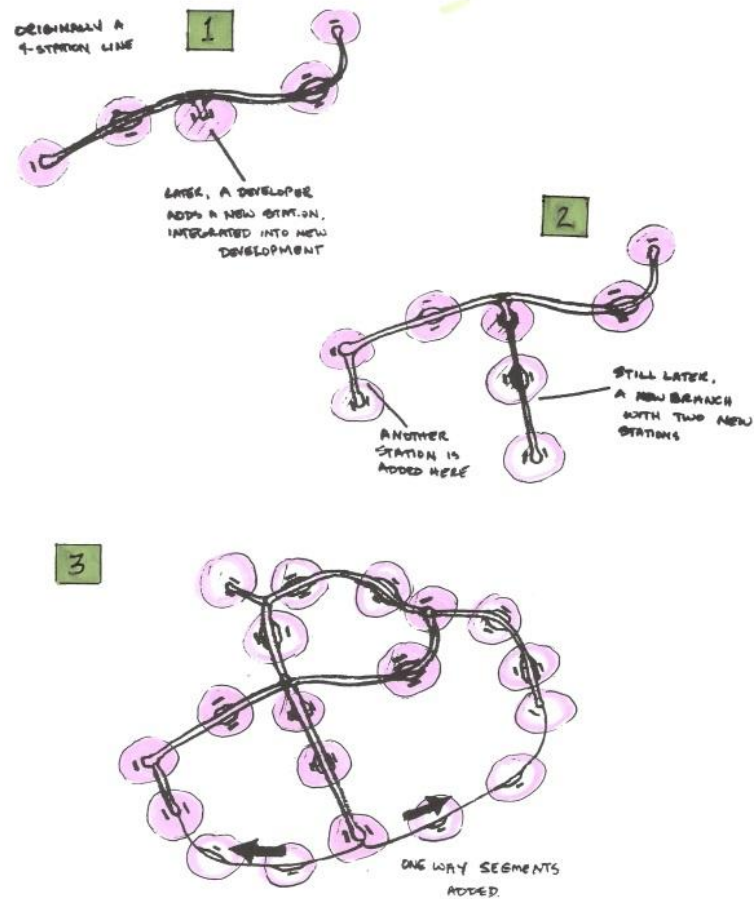
Five ATNs are in operation now



There are only a handful of credible ATN suppliers and no market yet



A ten-station (+/- 5) ATN could be delivered in two-three years



Many steps are recommended to advance ATN

1. Develop a program digest of the USDOT AGT programs of the 1970s
2. Synthesize Swedish research on ATN from the 1970s to the present
3. Sponsor research into the costs and risks of below- and above-grade implementations of APM and ATN systems
4. Sponsor research into how elevated ATN infrastructure
5. Perform a generic alternatives analysis for an MPO region or on a national scale to determine how urban mobility would be improved with investment in ATN in comparison with other modes
6. Continue research and development of solar photovoltaic integration with ATN
7. Investigate feasibility, costs, and benefits of ground-level ATN stations and/or of integrating stations into buildings
8. Investigate the economic impacts of small-scale ATN stations on land values compared with those of conventional rail
9. Investigate how ATN networks might impact demand forecasting and transit mode split models

Many steps are recommended to advance ATN , cont.

10. Incentivize MPOs to develop concepts using ATN to further sustainable transportation by issuing a request for proposals (RFP) for ideas
11. Incentivize MPOs to develop concepts using ATN to further sustainable transportation by issuing a request for proposals (RFP) for ideas
12. Encourage and fund ATN demonstration programs