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**MARKET SCENARIOS—INNOVATION IN THE PUBLIC SECTOR**


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**Realistic market development scenarios for group rapid transit (AGRT) suggest a cautious approach to investments with careful attention to the development of technology and incremental deployments of proven systems.**

### AGRT Implementation Scenarios

Introduction of a public technology into the real world is a complex and poorly understood process. Innovative urban transit technologies such as AGRT share much in common with that class of technologies found most likely to fail in OTA's recent study of Federal demonstrations. These failures result from: 1) technology that is not operationally reliable and 2) the complexity of the urban institutional environment.<sup>2</sup> These factors should be thoroughly evaluated before a decision is made to deploy AGRT systems.

Chapter V contains an assessment of how well AGRT might function in daily urban transit service. But it is also necessary to sketch out implementation scenarios that trace the path of the technology from development through prototypes to demonstration, deployment, and consumer acceptance. Major transit investments such as the downtown people mover (DPM) proposals or possible AGRT installations are regarded as demonstrations by the Urban Mass

Transportation Administration (UMTA), but are expected by local authorities to be proven systems capable of reliable daily operation. Thus, all automated guideway transit (AGT) deployments over the next few years will be subject to intense international scrutiny of their reliability, cost, and service characteristics. In this country the institutional complexity of the transit implementation process will ensure that these paths are not trouble-free.

While large-sized cities already committed to light- or heavy-rail systems might be in a position to accept new automated guideway technologies only in limited applications as distributor systems, more modest-sized communities without existing rail systems might prefer modest scale applications that could be expanded incrementally into corridor or regional systems. This is quite likely to be the reaction of transit operators, elected officials, and the community-at-large, as well as being pragmatic for capital spending purposes. This incremental approach of applying proven technology in measured doses is suggested by recent literature on demonstration programs.<sup>3</sup>

<sup>3</sup>Ibid., p. 48.

<sup>1</sup>Catherine Burke, *Innovation in Public Policy: The Case of Personal Rapid Transit* (Lexington, Mass.: D. C. Heath & Co., 1979).

<sup>2</sup>U. S. Congress, Office of Technology Assessment, *The Role of Demonstrations in Federal R&D Policy*, OTA-R-70 (Washington, D.C.: U. S. Government Printing Office, July 1978), pp. 31-41.

### Downtown People Mover Deployments

OTA's 1975 report on AGT systems recommended that UMTA undertake an urban demonstration of shuttle-loop transit (SLT) technology.<sup>4</sup> UMTA chose central business districts as

the application site for these demonstrations, and opened up the eligibility criteria to include any proven AGT technology, be it SLT, group rapid transit, or personal rapid transit. \* In fact,

<sup>4</sup>U. S. Congress, Office of Technology Assessment, *Automated Guideway Transit* OTA-T-8 (Washington, D. C.: U. S. Government Printing Office, February 1975), p. 7.

\*Descriptions and definitions of these technologies can be found in ch. I.

UMTA has called for the first three deployments to use different technologies. To direct primary focus on the social and economic impacts, UMTA decided that technological risk should be minimized.

While UMTA regards these ventures as demonstrations, the cities themselves are treating them as deployments. Because the impacts are real and long-lasting, the local decisionmaking process reflects the concerns of the various in-

terest groups. Thus, the implementation process as well as the actual system operations are worth observing and monitoring to guide the AGRT development and implementation program. As several of the R&D options discussed in the next chapter indicate, AGRT technology development could continue during this process, but with a goal toward subsystems development rather than toward the completion of production prototypes.

## Summary

**The scenario for implementation of advanced AGT technologies is one of gradual technical improvement and deployment of systems in short operable segments. The DPM program and the foreign deployments will provide valuable information that will be useful in guiding further automated guideway technology development.**