

information because of the lack of credibility associated with the claims of private firms.

DOE's ability to stimulate commercialization through a training program for service personnel was vividly illustrated in one case study. Examination of several other innovations suggests that inadequate training is a common and critical barrier to technological change in the buildings industry. Highly targeted training efforts supported by DOE and conducted in collaboration with trade associations and major manufacturers should be considered.

7.3 SUGGESTIONS FOR FUTURE RESEARCH

Additional case studies are needed to provide a better empirical basis for assessing the effectiveness of different DOE technology transfer strategies. In particular, much could be learned from case studies of technologies that have failed to achieve commercial success. In addition, future research should explicitly examine end-user demand for energy-efficient buildings innovations. This report has primarily examined "technology-push" approaches to technology transfer; "market-pull" warrants equal attention.

7.4 CONCLUSIONS

Energy-saving buildings innovations have a major potential role to play in improving energy security and international competitiveness. We have examined the process by which 12 technologies sponsored by the U.S. Department of Energy were successfully commercialized, and have suggested strategies for promoting future successes. The tentative lessons offered here provide insight into the complex innovation process and the importance of public support for R&D and technology transfer.