



**Institut Européen  
de Télémedecine  
CHU de Toulouse**

**Association pour la  
Sauvegarde  
des Enfants Invalides**



SETH'97

# Symposium Européen "Télématique et Handicap"

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Toulouse,  
les 18 et 19 septembre 1997

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*Centre de Congrès DIAGORA - Toulouse-Labège  
organisé par  
l'Institut Européen de Télémedecine  
et l'Association pour la Sauvegarde des Enfants Invalides*

## **Programme, rapports et résumés**



Union Européenne



## ISSUES IMPINGING ON THE SUCCESSFUL INTRODUCTION OF PRODUCTS AND SERVICES BASED ON HOME NETWORKS FOR INDEPENDENT LIVING, SUPPORT AND CARE SERVICES

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Home Networks ("Smart Houses") is an emerging field of technology that holds significant promise for enhancing the quality of life for disabled and elderly people and in supporting efficient and enhanced services delivered to their homes. There has been much work developing prototype applications and pilot installations that have been successful in demonstrating this. However there are diverse and significant challenges to be met if this potential is to be realised widely. This paper outlines and suggests ways to address key challenges in 5 broad areas: User Issues; Commercial Considerations; Service Delivery; Buildings and Technological Issues.

Introducing technology into the home is often a complex matter, as the home is a unique environment that has strongly symbolic as well as functional value to its occupants. Work in past projects has enabled a variety of human factors that remain a challenge for development in this area to be identified. These issues are outlined in the paper.

Important potential purchasers of such systems are identified and supplier requirements analysed. The particular challenges to the supply chain are outlined and illustrated. A potential business model capable of meeting the needs of the purchasers at a price that the market will bear is suggested and the work needed to support this outlined.

The linking of home network installations in the homes of disabled and elderly people to remote service centres could potentially yield substantial savings in service delivery costs while also offering enhanced services. However, the successful adoption of the technology in this area presents particular challenges and may lead to significant changes for service delivery organisation and practice. The situation is complex as most disabled and elderly people receive services from multiple agencies. This paper expands on these issues and suggests ways of addressing them.

Cost and ease of installation is an issue for home network systems in general. It is relatively easy to design a new home or apartment block to accommodate the necessary network infrastructure however most people do not live in new homes. This paper gives some statistics to highlight the importance of low cost retrofit of the systems and outlines and compares different approaches to realise this.

Home network technology is now available, however the failure of the formal standardisation process in the early 1990s has resulted in a high state of uncertainty as to which technology will be the European leader. This has significantly contributed to delay home networks' market acceptance. Standardisation is key because of the high desirability of interoperability between products from different suppliers. Major industrial players are now committing significant effort to resolve the situation. This paper gives the current state of play for standardisation and outlines the most likely outcomes. Other technological factors that impinge on the use of home network technology in this field are also outlined.