There are several location technologies: these types of services.

Today the main French operators (SFR, Telecom Bouygues, Orange) propose to mobile phone end-user to propose targeted services.

Location-based services are enabled by a technology, which allows to localize systems of tracking allow to make sure for example that a child will not go out of a established route. An example of this type of service is OOTAY, offered by most of the operators. This type of application can also address old persons who have difficulties finding a way. They can be localized by close relations or localize themselves;

− navigation;
− management of car fleets or the other materials through equipments provided with SIM cards;
− convenience services: allow the subscribers to find services near the place where they are: pharmacy, gas station, cinema etc.;
− geomarketing: access to advertisements or promotional operations near the location etc.

The purpose of this study was to assess the use of a positioning system by people with Alzheimer disease or dementia. This system is composed of braces equiped with GPS, connected to a remote-assistance service. First, a geofencing area, called “Safe Zone”, is determined, representing the location where the user is able to go safely. If the user leaves this Safe Zone, the remote-assistance service receives an alert and starts a retrieval procedure. The time of the alarms is automatically recorded, as well as the comments of the remote-operator about the follow-up of the alerts. “Leaving Safe Zone” (LSZ) alerts are considered as an indication of wandering.

This system was tested by 181 subjects with Alzheimer disease and related dementia (99 people living at home and 82 people living in specialized residences) and their caregivers from January to December 2010. The analysis of the data revealed that 77% of the alerts received concerned LSZ. Among these alerts, 53% were elicited in safe conditions (accompagnied or planned outings), and 15% were followed by the retrieval of the person. Finally, many more alerts were recorded in the Home group than in the Residence group, as persons at home were more able to go out than people in residences. Nevertheless, after normalization of the proportion of LSZ alarms, we observed that, proportionally, an equivalent number of persons were retrieved in both groups.

These results suggest that such a GPS-based Positioning System could offer more autonomy in safe conditions for people living in residences. It might even help avoid placing in residence persons whose only problem is wandering, by guaranteeing them a safe environment. Nevertheless, complementary analyses, which are being conducted in a larger-scale project called ESTIMA (French acronym for: Sociological and ethical Assessment of Information Technology for the Localization of people with Alzheimer’s disease who wander) are essential to extract eventual significant differences concerning the wandering in residence versus home residents. We thus plan to bring other important observations for improving medico-social