

P. ABELLARD, A. ABELLARD. **Virtual living lab to help the ageing.** *Gerontechnology* 2016; 15(suppl):69s; doi:10.4017/gt.2016.15.s.748.00 **Purpose** The project ATOLL (*Figure 1*), French acronym of 'Appartement Test Orienté Living Lab', is currently in an early phase of development in which the aim is to create a communication tool using virtual reality with two purposes. The first one is therapeutic¹, to assess the abilities of people to live independently², to define human and / or technical eventual assistance and to simulate case studies of independent living³. The second one is educational, to inform and to educate professionals involved in housing affordability, to facilitate information on in-home support / care services, know-hows, existing innovating technical solutions⁴. **Method** Var Conseil Departemental previously led a preliminary study with 50 professionals (therapists, general practitioners, nurses, aged from 25 to 60, 1/3 women, 2/3 men) and representative of social care local organisms answered an in-depth questionnaire on their needs in technological assistance. This was the base of our work developed with Unity 3D and 3DS Max Autodesk software by integrating AEC tool (Architecture Extended Objects). The tool has been developed in order to assist in the search of an optimal living solution before any practical realization⁵. **Results & Discussion** A 3D environment aims at making easier case studies of patient independent living and demonstrations, adaptations, testings of home automation and technical assistive tools, equipments, and facilities, etc., by health professionals with patients and their families. This tool can also be used for training to architects on building accessibility, layout and home automation and to make applied researches for the development and validation of new automation systems. It only requires a classic PC or laptop, and not any specific material; cost is therefore minimal. Until now, the Var Conseil Departemental mostly used it as a demonstration tool to housing professionals, to show existing technical solutions for disabled people and how they integrate into a flat.

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Figure 1. ATOLL general view