



The CREST Living Lab : when sustainable technologies help territories

What is a 'living lab' ?

A set of sensors that return various data – temperature, humidity, luminosity, electricity consumptions...

- a survey of users' habits and usages of the building
- a computer software that offers graphic representations of such data usable by both management and users.

The living lab can be adjusted to different sets of specifications or issues : indoor air quality in the day-nursery, for example.

The objectives (goals) of a living lab :

- Collect all needed data in order to assess specific consumptions of each room e.g. peak morning temperature, heating units on at week-ends...
- collect users' impressions and feelings in their use the building (air drafts, lights that are never put off, too high humidity level...

The living lab helps the shared energy adviser in his work with communities.

The collected data – both technical and human – allow improvement procedures in the use of the building and a better use of sun radiations. For example :

- usage recommendations (eco-gestures) communicated to users
- recommendations for transformations or arrangements according to the project
- improvements of the global indoor quality
- keys to slashing energy consumptions and bills
- keys to slashing bills for the use of the building

Requirements for a living lab – building, arrangement...

- Renovation project
- new or recently renovated building
- Over a disruptive span of time : before works / management turnover / removal
- 24/7 used building (administrative, office building, school...)
- an inventory of previous years' bills is a 'plus' (a bonus)
- it is always better when the different users – staff, management, owners, maintenance technicians... – share a genuine interest in environmental issues.