



HOMELAB

Europe's first independent testing ground
for smart home applications and services

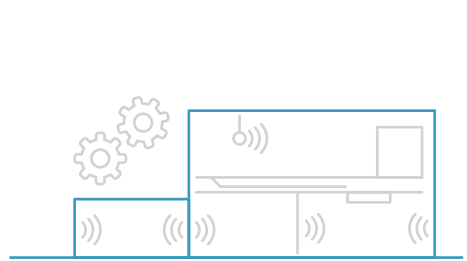
HOMELAB IS A HOME

It is a two-story house in which people can live temporarily to test and co-create IoT proto-types or products.



HOMELAB IS A LAB

With technical corridors in every room and an open home automation system, it offers tremendous flexibility to install smart products and test their interoperability with other systems.



■ imec



HomeLab is an initiative of imec and Ghent University. It focuses on testing and co-developing smart home innovations in a variety of application domains – from home automation and (health)care to entertainment, energy and security. It aims at serving the needs of SMEs as well as large businesses, researchers, non-profit organizations, etc.

WHY WORK WITH US?

HomeLab is a unique testing facility for smart home applications in Europe. The lab offers innovative companies a highly flexible and cost-effective environment to define and validate their high-tech market solutions.

- Its flexible infrastructure and the expertise of the HomeLab team allow to easily deploy your services in its 600m² testing environment.
- The HomeLab team can tap into the expertise and knowhow of the broader imec community to assist you even better (e.g. actively engaging end-users in all stages of the innovation cycle for instance by means of the imec.livinglabs approach).

EXAMPLES OF ONGOING PROJECTS

The power of HomeLab can be leveraged in various ways – from engaging in strategic and long-term collaborations to project-based or bilateral partnerships. In other words: collaborating with HomeLab is as flexible as the house itself.

Examples of ongoing projects include:

- Smappee, a company developing innovative solutions for more sustainable energy consumption, is testing its load disaggregation algorithms for the recognition of household appliances
- Niko is calling upon HomeLab to work on home automation systems and the interoperability with third-party solutions.
- As part of the 'ROBOCURE' imec.icon project, a robot will inhabit the house and assist young diabetic patients.



THE HOUSE

HomeLab is situated at the Technology Campus Ghent, Belgium. It looks like a normal house, except that all rooms have technical corridors and hollow floors and ceilings (to easily install new technology).

The ground floor of 246m² includes a living room with an open kitchen, a care room with bathroom, a home office and a garage. The first floor houses a master bedroom, a children's room and a family bathroom.

Next to this living area, there are two multi-functional rooms that can be used as meeting rooms and a cellar with the HVAC (heating, ventilation, and air conditioning) equipment, heat pump and the extended electrical cabinets to control all HomeLab functional elements.

600m² of test and co-development facilities for inventors, designers, developers and testers of smart living innovations!



Guiding products on their way to
a successful market introduction.

HOMELAB BITS & BYTES

HomeLab features an open home automation system (Velbus) able to control all functional elements (screens, switches, doors, windows, etc.) in the house and imec's DYAMAND technology, a middleware that allows the automatic discovery of and communication with diverse sensors, actuators and user interfaces. The combination of flexibility in building infrastructure, hardware and software facilitates a very easy integration of new product prototypes with different off-the-shelf technologies and relevant standards (EnOcean, Grove, UPnP, ZWave, ZigBee, Philips Hue, Amazon Echo, etc.) and more experimental technologies and set-ups, all available in the HomeLab. In the house, several robots are operating, including QBMT's Zora and Pepper. The HomeLab team also provides supporting software tools and methods for data captation and sensor fusion.



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MORE INFO

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