

SmartCity Innovation Labs

Companies developing solutions in Smart City need testbeds for their solutions.

The following list of living labs, maker spaces and other testing and developing facilities geared towards smart city solutions will help companies and research institutions to further their innovations.

| Name | Location | Торіс | Infrastructure | Website |
|------|-----------------|---|---|--------------|
| DFKI | Kaiserslautern, | In the field of innovative software technologies that are based | As a Living Lab, the DKFI serves not only as a scientific | https://ww |
| | Saarbrücken, | on methods of artificial intelligence, the DFKI is one of | research laboratory, but also as a temporary working | w.dfki.de/ |
| | Bremen, Berlin | Germany's leading research institutions linked to business | space for members of the University of Kaiserslautern | web/living- |
| | | interests. | and the DKFI. The people working in the Living Lab use | labs-de |
| | | | trendsetting technologies and also act as test persons | |
| | | Topics: | for purposes of evaluation and further developments. | |
| | | Advanced Driver Assistance Systems Living Lab | | |
| | | <u>Ambient Assisted Living Laboratory - BAALL</u> | | |
| | | Innovative Retail Laboratory - IRL | | |
| | | <u>Robotics Exploration Laboratory</u> | | |
| | | <u>SmartCity Living Lab</u> | | |
| | | <u>SmartFactory Laboratory</u> | | |
| | | • <u>smart office space</u> | | |
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| WeLL | Belgium | The WeLL aims to put technology at the service of citizen' well- | The WeLL works with facilitators. Each Living Lab has its | http://well- |
| | | being and health professionals. By integrating users at the heart | own team of qualified people who will be present | livinglab.be |
| | | of the reflexion process, we anticipate changes and needs in | throughout the whole process to support projects and | /english/ |
| | | health matters and ensure a greater appropriation of | promote their implementation. They can also give | _ |
| | | innovations. Our mission is to promote the emergence, to guide | ideas, start projects or calls for projects. Indeed, the | |
| | | and support innovative projects and to develop new | team is the «fuel» that turns the wheel of the Living Lab | |
| | | | | |



| | | technologies or new uses from what already exists The WeLL feeds on projects. Anyone can bring a project in a Living Lab: citizen, user, company whatever its size, organization, innovative concept designer, public institutions, start-up, school or university, etc; big and small projects, products, services, technical, artistic, methodological or awareness projects. | The facilitators will use methods and tools. Because bringing ideas, defining concepts and implementing solutions requires expertise, skills and above all, a lot of positive energy. To do this, the facilitators will organize creative workshops, rapid prototyping processes, real environment tests and many events. The Facilitators are part of an ecosystem. A group of actors, of companies, of organizations, in short, people who will support the work of the Living Lab by providing skills and resources. | |
|------------|--------|--|--|---|
| e-Care Lab | France | The e-Care Lab mission is to stimulate innovative products/services and design healthcare solutions for autonomy with all health stakeholders (health professionals, patients, home services and companies). This mission is declined in three axis: developing an integrative vision of care processes to ensure a better match between the supply of technologic products / related services and the needs of patients and / or practitioners; optimizing the integration of solutions developed in the process of care or in the medico-social support for patients and carers; developing safer, less invasive and more targeted technical medical procedures. | validation, a life space assessment. It provides an organization to identify and label innovative projects addressing technical, organizational and social challenges in care. | http://ww w.medicalp s.eu http://ww w.innovage - project.eu/ sites/defaul t/files/5- INNOVAge 1stInterme diateEvent Workshop _eCareLL_A DEBAG.pdf |



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| Lab4Living | UK | Lab4Living is a collaborative interdisciplinary research initiative | Lab4Living not only refers to the collaborative | www.Lab4L |
| | | between the Art and Design Research Centre (ADRC) and the | partnerships between our researchers. The Lab4Living | iving.org.uk |
| | | Centre for Health and Social Care Research (CHSCR) at Sheffield | is also the physical space where much of our research | |
| | | Hallam University, UK. This creative collaboration brings | takes place. This space is a state-of-the-art | |
| | | together researchers from the disciplines of design, creative | experimental area where it's possible to conduct both | |
| | | practice and healthcare who have extensive experience related | qualitative and quantitative studies of human behaviour | |
| | | to social, clinical and medical care, disability and ageing. | and to understand individuals' interactions with the | |
| | | Openness is demonstrated by Lab4Living's commitment to the | built environment. | |
| | | development and implementation of inclusive and innovative | | |
| | | co-creation methods and formats to engage as wide a | | |
| | | community as possible. Head up is a project funded by the | | |
| | | National Institute for Health Research (NIHR) and supported by | | |
| | | the Motor Neurone Disease Association (MNDA) and by MND | | |
| | | patients and carers. We are actively working with them in a | | |
| | | collaborative process to enable us to understand their needs | | |
| | | and to co-create solutions. | | |
| Doll | Denmark | Together with our partner organisations, our team of around 35 | DOLL, Danish Outdoor Lighting Lab, is Gate 21 first | http://ww |
| | | employees strive to make Greater Copenhagen the leading | Living Lab. DOLL has since its opening in September | w.lightingla |
| | | region in the world for green transformation and growth. Our | 2014 become Europe's largest showroom and outdoor | <u>b.dk/UK/</u> |
| | | strategy is based on the use of regional and local demand to | lab for lighting and smart city solutions. In the suburbs | |
| | | develop, demonstrate and deploy new energy and resource | of Copenhagen, an industry park has become Europe's | |
| | | efficient solutions to climate and energy. | foremost arena for manufacturers and suppliers to | |
| | | | present and test the newest lighting and Smart City | |
| | | In DOLL Living Lab, we exhibit the latest solutions for outdoor | solutions. Technologically, DOLL Living Lab consists of | |
| | | lighting with LED technology, intelligent management and | 14 kilometer of road with state-of-the-art lighting | |
| | | integration of Smart City technology, sensors and Wi-Fi, | infrastructure and a control room where different | |
| | | providing new opportunities to improve and streamline municipal services to citizens and businesses. The role of DOLL | management systems are demonstrated. The | |



| | | is primarily to support decision makers and city planners when deciding on outdoor lighting and Smart City solutions. Secondly to enable private providers of urban infrastructure, components and services to demonstrate and test new technologies and solutions in a 1:1 scale environment. | benchmarking opportunity of different technological solutions set up in such a vicinity of each other make the lab unique. DOLL also offers test and modelling possibilities, DOLL Quality Lab offers state-of-the-art scientific test facilities to characterize light sources, fixtures, lamps and lighting components, whereas DOLL Virtual Lab make 3D-computer models making it possible to program luminaires' and sockets' effect, distribution, | |
|-----------------------------------|---------|--|--|--|
| | | | reflection and glare. Important projects for DOLL is twofold; 1) SUS – Smart Urban Services platform will deploy sensor networks and communication systems in the urban service sectors, 2) Lighting Metropolis a flagship project in Greater Copenhagen, combining the strengths of eastern Denmark and southern Sweden. | |
| FZI Living Lab Smart Energy | Germany | Participative research of science, industry and other operators Focused allocation of interdisciplinary scientific know- how Field tests for engineering and IT-applications prior to market launch Holistic testing of innovative concepts for your products Feedback of market expertise to research Releasing of innovation pulses Moderation between technology and practice Room for open innovation | The FZI House of Living Labs brings together under one roof all FZI Living Labs and offers modern infracstructure for the development, evaluation and presentation of future technologies. Here, scientists and partners of the FZI from industry and society are given room for an exchange across their various application domains. Interdisciplinarily, they can thus develop integrative solutions for informations and communications technology. | www.fzi.de https://ww w.fzi.de/fil eadmin/us er_upload/ PDF/2013- 10- 01_Flyer_IS |
| | | The FZI Living Lab smartEnergy offers an interdisciplinary | The power generation in the FZI House of Living Labs (HoLL) is carried out by a decentralised generator. To | <u>PE-</u> IIK_smartE |



| | | research environment for the development of solutions for the future energy system. The FZI house of Living Labs was equipped with modern technology for the purposes of allocation, storage and flexible usage of thermal and electric energy. Thus, methods newly developed in the FZI Living Lab smartEnergy can be practically evaluated and demonstrated. | this end, a photovoltaic system with a storage system and modern inverter system was installed. A cogeneration unit additionally supplies thermal energy that is used for heating in winter and powers an adsorption refridgeration system in summer. Through a thermal buffer storage, power generation can be partially decoupled from power consumption. For the system's networking, various building automation systems (such as KNX, HabiTEQ, wEnergy) are applied. | <u>.pdf</u> |
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| Thess- Ahall | Greece | The lab fosters initiatives encouraging regional development and healthcare systems sustainability by the provision of novel technologies and innovation. The lab is actively engaged with the end-users and relevant community stakeholders, actively pursuing co-creation and co-design of technological solutions to improve health and social conditions and facilitate independent living. The main goal is to facilitate the ultimate aim of speeding up innovation, collaboration, development and testing of more accurate services, which is achieved by the early involvement of users as co-creators. | a bathroom-like space and a hall-kitchen space, all in the same room. A number of elderly volunteers | <u>http://ww</u> <u>w.aha-</u> <u>livinglabs.c</u> <u>om/</u> |
| S.S.I | Spain | The living lab is a pioneering infrastructure that attempts to simulate the different rooms of a home with advanced technology. Integrated Social Services Group S. Coop is a cooperative of companies of social initiative declared of public utility that offers professional services to individuals and institutions in the areas of attention to people in situation of dependence and / or | It has 100 square metres and adapted beds and baths, an hydraulic motor cranes, a modular kitchen, etc., resources that are equipped with technological advances that make it easier to care for elderly dependent people. It also has user friendly touch screen computers that avoid having to use a mouse and keyboard for people with reduced mobility, and that using software allow carrying out videoconferences. Its | w.grupossi. |



| social vulnerability. most innovat | ing technological characteristic is a |
|--|---------------------------------------|
| hydraulic mot | or crane system that hung from the |
| The group is made up of 5 organizations : 4 cooperatives and an ceiling can m | ove the dependent users from their |
| association, which integrate, in addition to social intervention wheelchair to a | any room in the simulated home. |
| services, a R & D unit (Home Care Lab) and a knowledge center, | |
| SSI Training Center. | |

