

The Finnish Environment Institute SYKE

– Research and experiments for sustainable urbanisation

We provide urban decision-makers, citizens and stakeholders with keys to sustainable choices.

We strengthen urban citizens' role as the implementers of sustainable development.

We promote research and development activities that support sustainability in cities and urban areas.

municipalities, counties



SUPPORTING SUSTAINABLE DEVELOPMENT WITH URBAN PLANNING

It is important to ensure that the urban areas remain compact, in order to respond to climate challenges. Together with urban planners, SYKE has drafted a forward-looking analysis and mapped out a decision-making path towards 2030 for 14 urban areas in Finland, aiming to help planners create cities that are more compact and thereby more effective in ecological and economic terms. In-fill developments on brownfield sites can create new districts that also attract investment and boost the economy.

decision-makers and ministries



ADDRESSING CLIMATE IMPACTS OF HOUSING AND CONSTRUCTION

For the preparation of the Finnish Government's energy and climate strategy, methods developed by SYKE were used to assess energy consumption and emissions. Up to 80% of greenhouse gas emissions causing global warming originate from the production and consumption of energy. The energy consumption of buildings requires quick measures to reduce emissions. Buildings make up a quarter of all energy consumption. The operational models developed by SYKE were also used to raise citizens' awareness on the climate effects of peoples' homes and everyday lives.

cities and municipalities



EXPERIMENTS PROVIDE NEW SOLUTIONS FOR CITIES

Cities have improved their climate work with the support of sustainable pioneering municipalities, the FISU network. Joensuu invested in reducing the use of fossil fuels in energy production. In addition, the city is investing in bicycle paths and the network of bicycle and pedestrian routes. In a housing experiment in Jyväskylä, the use of LED lights reduced the energy consumption related to lighting by 75%. In a food loss experiment, 4.3 kg of natural resources were saved per portion. SYKE is planning on utilising the experiments on a wider scale. The municipalities in the FISU network are working towards carbon neutrality, zero waste and globally sustainable consumption by 2050. SYKE coordinates the FISU network together with Motiva.

cities and municipalities, counties

MUNICIPALITIES PREPARING FOR CHANGE IN RESIDENTIAL ASPIRATIONS



Using the SYKE residents' barometer, municipalities have improved their monitoring of living and residential environments. The long-standing trend of urbanisation in residential aspirations mean that living in an apartment building near the city centre is increasingly popular and the interest in living in a detached house has decreased. The SYKE residents' barometer has observed development in aspirations since 1998. The barometer has gained significant interest from the media and inspired further research on the subject.

cities and municipalities, civil society actors, decision-makers and ministries

CITIZENS AS SIGNIFICANT URBAN ACTORS



Digitalization has created new forms of civil activity and sharing economy for renewing communities, democracy and markets. SYKE helps the actors of different sectors adapt to change and take advantage of it. The information produced by SYKE and the University of Helsinki helped the city of Helsinki take the civil activity of this so-called fourth sector into account when creating the city's model of participation. For example, the administrative rule of the city requires office-holders to enable the independent activities of citizens. In addition, the concept of the fourth sector has spread to central government and many municipalities, supporting the change.

cities and municipalities, businesses and enterprises

CAR SHARING AS A PART OF SUSTAINABLE MOBILITY



Car sharing is an example of novel services promoting sustainable mobility in cities. The location of shared cars has significant impact when the goal is to increase their use. Car sharing service 24Rent and SYKE identified new areas for most potential for car sharing operations in Tampere and Helsinki in order to increase take-up of the service. For this purpose, information about car usage, social structure and practical experiences of operators were also combined.

civil society actors, cities and municipalities, decision-makers

ENABLING ACCESS TO THE BENEFITS OF URBAN NATURE







Natural areas sustain human health and wellbeing. With an urbanising trend, the natural habitats in and around cities have decreased. SYKE generates information and tools on the value of urban nature for decision makers. The city of Järvenpää and municipality of Sipoo have benefitted from these tools, and taken urban nature into account in their planning approaches together with the local citizens. The citizens thus had the chance to positively influence retaining urban nature as part of a functional urban form.

Photos: Heli Vilmi, Olli-Pekka Pietiläinen, Kalevi Korhonen, Anna Strandell, Maija Faehle, 24Rent



SYKE

 @SYKEinfo
 www.facebook.com/syke.fi
 www.youtube.com/user/sykevideo
 www.linkedin.com/company/syke

The Finnish Environment Institute SYKE is a national research institute that provides wide-ranging expertise.

Finnish Environment Institute SYKE | syke.fi | environment.fi |

27.2.2018