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PROMOTING URBAN HEALTH AND WELL-BEING WITH GIS AND CROSS-BOUNDARY CITY PLANNING

AUTHORS: Kati-Jasmin Kosonen, Heli Suuronen

Short Description

The project “Modelling of well-being and improvement of well-being management -network project HYMY” focuses on to spatially identify the most relevant built environment elements of well-being and how these are spatially distributed and accessible to residents, in the context of Finnish cities.

Main part

Various improvements and planning strategies related to sustainable infrastructure and transportation system play a key role in building healthy urban environments and quality of life. Today, cross-boundary planning and measurement of well-being and accessibility in urban space is more critical than ever. For example, it is stated that urban accessibility strategies that combine compact urban design with sustainable transport system planning are able to reconcile a range of policy objectives, contributing to novel solutions in local economy, improving health and safety, and increasing social equity within urban landscape. The orientation level stays locally in a very practical level how are the bus stops located in urban structure, how about railway stations, shore sides and green areas? How walkable are city centers, campus areas, service hubs and school surroundings? Where environmental hazards and signs of a poor mobility infrastructure factors tends to accumulate? We present a new set of urban well-being indicators and spatial modelling tools designed for neighborhood-, municipal- and regional-scale planning. In addition, the task is to provide new set of qualitative analyses for urban design.

“Modelling of the well-being environment and improvement of well-being management -network project HYMY” [2019-2021] is a unique cross-sectoral, cross-regional development project coordinated by the Joint Authority of the Tampere City Region, Finland. The participating cities and the Ministry of Social Affairs and Health of Finland fund the project. Cities in the project are Jyväskylä, Kuopio, Lahti and the Tampere City Region , all mid-sized Finnish cities that were identified to the project through the National Network for Land Use, Housing and Transportation (system). The project has several co-partners; University of Tampere, Finnish Environment Institute (SYKE) and A-konsultit Architects.

The HYMY project has produced several outputs related to urban well-being using spatial modelling and co-creation of knowledge. Here, we present four examples of these outputs: 1) study groups from Tampere University (publ: Tampere City Region 2040+ - Regional Factors of Well Being, link provided); 2) spatially identified and prioritized well-being indicators of the built environment as a result of co-creation process together with Finnish Environment Institute (SYKE) and local practitioners of the cities using a new tool, StrateGIS, based on spatial multi-criteria decision analysis (SMCDA); 3) the development of the urban environment quality indicators from the well-being promotion perspectives; and 4) the development of the evaluation process and the set of well-being indicators chosen for the feedback phase of the sustainable cities. With these new methods and indicators, the cities in Finland and beyond can better plan and assess healthy urban environments for active living and environmental and social sustainability of the cities. The ultimate task of the project is to promote health and well-being in the city policies by integrating various sectoral point of views to active, coordinated well-being and urban accessibility policy. In addition, the city practitioners, along with the citizens and policymakers, will benefit from the spatial information produced in the project.

What is new?

Focusing on the mix match of urban accessibility and well-being measures and characters of the urban space, the HYMY project introduces a set of modelling tools and strategic urban planning practices that help city planners and policy makers to view and systemically plan to healthy, sustainable and

accessible urban environment for citizens, entrepreneurs and tourists. The well-being measures have been forgotten factor in urban accessibility and design but been revisited lately through concepts like healthy cities or walkable cities.

What is transferable to other cities and regions?

The main task is to promote health and well-being in city policies, integrating various sectoral point of views to coordinated well-being and active urban policy. In general, the idea is to enhance the policies focused on sustainability in city politics, explored deeper in the four case areas but in the transferable manner. Therefore, other cities and regions get new insights and models a) how to integrate separate measurements and indicators to the same city strategy or plans, and b) how to communicate the effects of chosen indicators and measurements to wider public and policy makers in a new way.

What are outcomes and conclusions?

The main outcomes are the new integrated tool and practices for urban planning and better policies for promoting urban accessibility and well-being and activity of the citizens in our urban environment. The new type of cross-sectoral spatial representations makes it easier to citizens, interest groups and policy makers to communicate together and discuss about the most wanted elements of the active and healthy cities. Without shared visions and tools as maps, plans, visualizations, indicator tables etc. the discussion is much harder and more open to political waves.

Who are the main target groups?

Planning officers and professionals in cities and consultancy groups, city administration and other public actors, in general all those city officials and co-working partners who are working for healthier cities; accelerating behavioral change in urban mobility and well-being of citizens; the citizens and service providers, consultants within the construction field, researchers, and policy makers.

And what now? - what will change? - what is the relevance for the future?

A cross-boundary approach for assessing and measuring urban well-being is needed; in this abstract, we address the integration on urban accessibility and well-being effects of the urban infrastructure. Due to the COVID2019, it is more important than ever assess the healthy urban environment for urban design and its counterparts as urban planning and sustainable mobility change. In the time of austerity, cities need reliable data for informed decision-making and health impact assessment, for example to ensure the good accessibility to recreation facilities and other functions enhancing well-being at a time when indoor encounters of people are restricted. We suggest that planning healthier cities require methods and tools in various spatial scales to improve urban infrastructure. With the methods and tools developed in this project cities reach new level of knowledge how to measure healthy urban space in different scales for active living and evaluate different environmental health aspects in infrastructure decision making.

Publications connected to the theme:

- Tampere City Region 2040+ - Regional Factors of Well-Being,
- Tampere University School of Architecture, Urban Planning and Design IV, Fall 2019
mal-verkosto.fi/wp-content/uploads/2019/12/TampereCityRegion2040-3.pdf

- Tiitu, M., Viinikka, A, Nieminen, H. & Strandell, A. (2020). StrateGIS - menetelmän soveltaminen hyvinvoinnin suunnitteluun (Applying StrateGIS method in the planning of well-being), in Finnish. Open access educational report.

[www.syke.fi/fi-FI/Tutkimus__kehittaminen/Tutkimus_ja_kehittamishankkeet/Hankkeet/Paikkatietopohjainen_menetelma_ympariston_hyvinvointitekijoiden_tunnistamiseen_StrateGIS/Paikkatietopohjainen_menetelma_ymparisto\(55875\)](http://www.syke.fi/fi-FI/Tutkimus__kehittaminen/Tutkimus_ja_kehittamishankkeet/Hankkeet/Paikkatietopohjainen_menetelma_ympariston_hyvinvointitekijoiden_tunnistamiseen_StrateGIS/Paikkatietopohjainen_menetelma_ymparisto(55875))

Link to the project

mal-verkosto.fi/hankkeet/hymy-hyvinvointiympariston-tietopohjan-mallintaminen-ja-hyvinvointijohtamisen-kehittaminen-verkostohanke/