



CASE  
STUDY

## Case Study



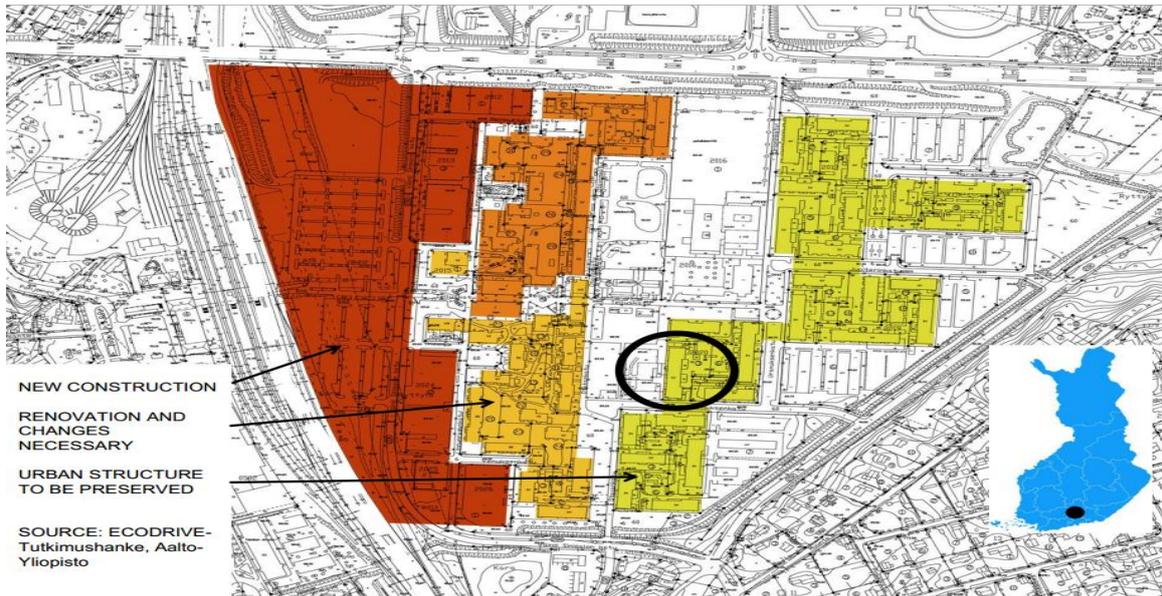
Clean Energy

## Helsinki, Finland - Eco-efficient renewal and revitalization of Peltosaari neighbourhood

The Peltosaari neighbourhood is situated north of Helsinki. It is in the humid continental climate close to subarctic. On average the place has over 5000 heating degree days per year. It was built during the 1970s and 1980s next to Riihimäki city center about 70 kilometers inland from the capital. Peltosaari has today some 2,800 inhabitants compared to planned maximum occupancy of 3,600 inhabitants. The socio-economic situation requires radical action to prevent further social exclusion and segregation. The Peltosaari project is rather small. But in a nutshell it has the elements of Eco efficient renewal and revitalization of a sunset neighbourhood by technical, architectural and socio-economic development, which is its vision and objective. It is an intensely analysed, research-led, and monitored pilot and demonstration project, with high level architectural and urban planning participation. The residents of Peltosaari are connected to the process. Important part was the financing and cost control in order to assure affordability despite improved quality and much higher energy efficiency.

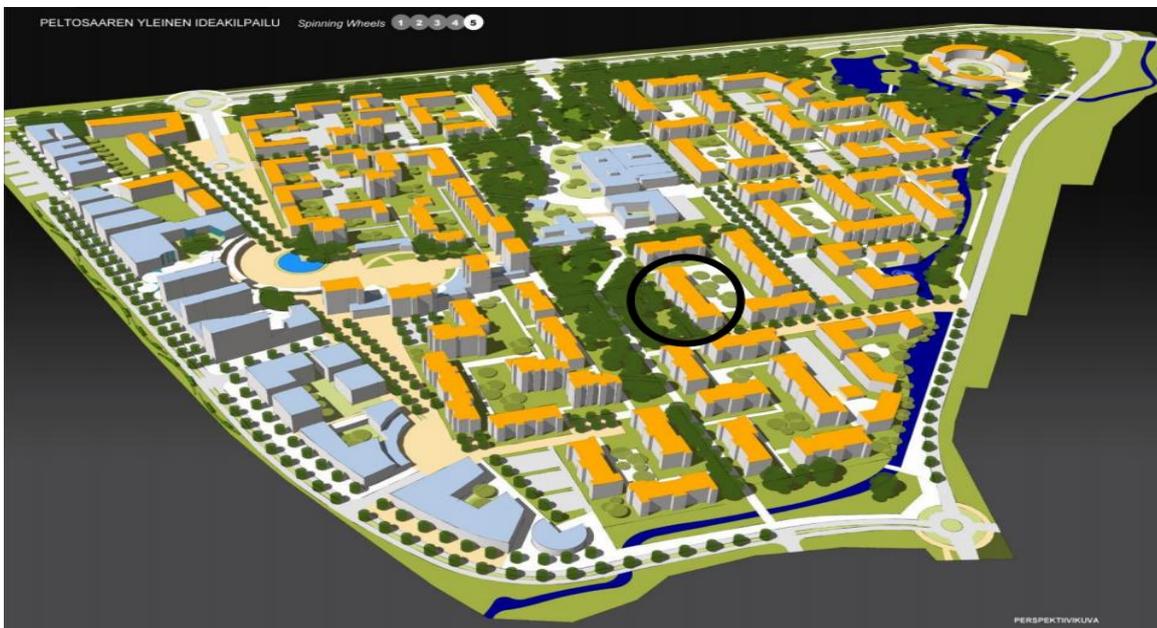
A competition was opened for free ideas on the future with criteria including innovative planning, new urban design, energy-efficiency and eco-efficiency, transport system, and community solutions for housing and development of existing environment and building stock. Tools available for the city administration are the master plan, rental agreements, other agreements between the city and site owners, organization of ideas and other competitions, co-operation initiatives with various stakeholders, and implementation of innovative development ideas from other projects. Some buildings were demolished and new building space added. The plan below shows the winning entry 'Spinning Wheel' with the renewed railway station left to the settlement. The red lines indicate buildings to be demolished.

## Location of passive house retrofit projects, Riihimaeki, Peltosaari



Source: [https://noppa.aalto.fi/noppa/kurssi/a-9.3600/luennot/A-9\\_3600\\_lylykangas\\_lecture\\_2014.pdf](https://noppa.aalto.fi/noppa/kurssi/a-9.3600/luennot/A-9_3600_lylykangas_lecture_2014.pdf) page 50-51. Architect Antti Huttunen.

## Passive house retrofit, Riihimaeki, Peltosaari



Source: [https://noppa.aalto.fi/noppa/kurssi/a-9.3600/luennot/A-9\\_3600\\_lylykangas\\_lecture\\_2014.pdf](https://noppa.aalto.fi/noppa/kurssi/a-9.3600/luennot/A-9_3600_lylykangas_lecture_2014.pdf) page 50-51

Energy efficiency and refurbishment of the existing district heating were the main features and accessibility of the railway station with connection to Helsinki improved to reduce transport time and energy.

## References

IEA (2012) ECBCS Annex 51 Subtask B May 2012, Final report.  
[http://www.annex51.org/media/content/files/casestudies/subtaskB/Case%20Studies/Endbericht\\_subtaskB.pdf](http://www.annex51.org/media/content/files/casestudies/subtaskB/Case%20Studies/Endbericht_subtaskB.pdf)

## Credentials

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