

Helsinki's open energy and environmental data

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Helsinki city strategy (2017–2021)

The Most Functional City in the World

Helsinki City Strategy 2017–2021



“Helsinki aims to cut emissions by 60% from 1990 to 2030 and resets the city’s target year for carbon neutrality to 2035 from the previous target year of 2050.”

“By the end of February 2018, a scheduled action plan will be drawn up regarding the implementation of the emission cuts.”

Open energy map a long dreamed vision

- The wake-up call came from Turku Nordic Solutions conference (2011), inspirational presentation by Odense (2D heat map)
- Realization what open energy data can offer:
 - support building owner's interest on the performance of their buildings and to see the potentials
 - To support cleantech businesses possibilities to develop needed services and see the potentials where they can help best
 - To ease city and climate planning and energy advising (visuality helps decision-making)
- Helsinki has been in forefront in open data (HRI) and has a huge amount of data -> why don't we do the same or more for energy?



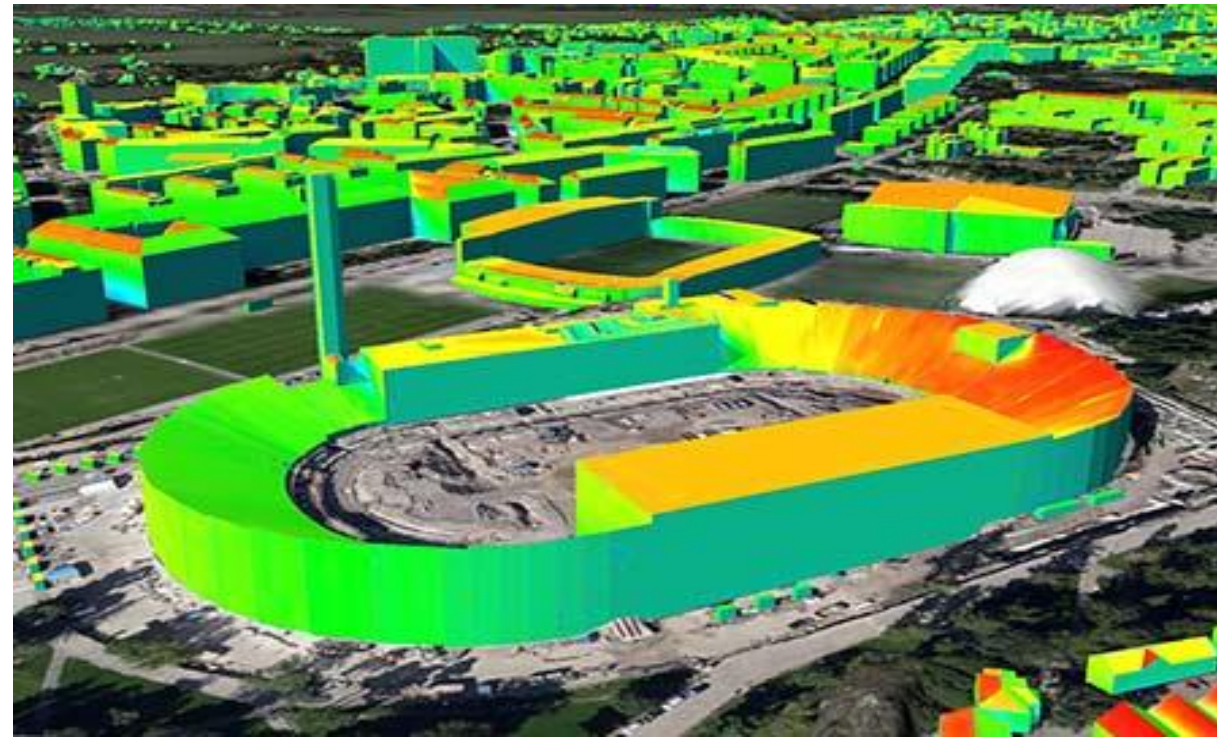
Open 3D energy and climate atlas

- The aim is to support energy saving and increase renewable energy
 - building owner's interest on the performance of their buildings and to see the potentials
 - smart&clean businesses possibilities to develop needed services
 - ease city and climate planning and energy advising (visuality helps decision-making)
- Contains both real and calculated building-specific data
 - includes energy-efficiency upgrades, energy certificates and the energy sources used for heating
 - estimated energy consumption of all buildings and estimated energy renovation potential and cost efficiency (VTT)
 - presents building-specific solar energy potential



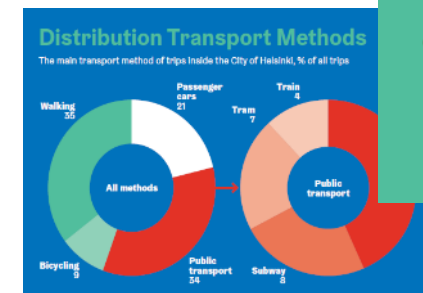
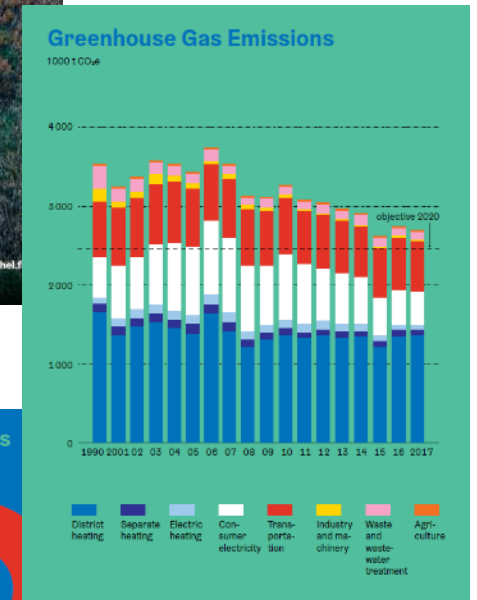
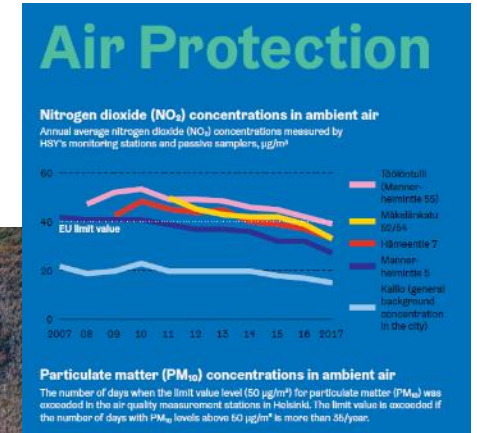
Open 3D energy and climate atlas

- The atlas was executed and visualised on Helsinki's 3D city information model (CityGML)
 - allows easy utilisation and further application of the data, i.e. advanced city analyses and simulations
 - covers entire city, enables an easy citywide or specific buildings energy survey
 - semantic information of each 3D building model and stored as additional attributes, as well as building texture
- Opened in Feb 2018, follows Helsinki's principles of open data
 - data available freely for the development of new knowledge and applications
 - www-pages <https://kartta.hel.fi/3d/atlas/> and <https://hri.fi/data/fi/dataset/helsingin-3d-kaupunkimalli>
- Just a beginning (Geothermal, adaptation...follows)



Environmental report

- The City of Helsinki publishes an environmental report annually.
- The environmental report details the achievement of the City of Helsinki environmental goals and the impact of operations on the environment.
- Environmental reporting and environmental indicators are also developed by the six largest cities of Finland (Helsinki, Espoo, Vantaa, Turku, Tampere and Oulu) in cooperation.



Environmental report's Open data

- The City of Helsinki has opened the city's environmental report data from 2014 onwards.
- The information to be opened includes the verbal information collected from the City divisions and municipal enterprises, as well as the economic figures belonging to the environmental account.
- The data collected annually will be opened in the spring of next year.
- Information can be found at <https://www.hri.fi/en/dataset/helsingin-kaupungin-ymparistoraportti> and <https://www.hri.fi/fi/dataset/helsingin-kaupungin-ymparistotilinpito>

Helsinki environmental statistics

- Major city level indicators in www-service since 2007
 - includes the main environmental indicators: environmental load and the state of environment
 - Helsinki, metropolitan area, 6-pack, international comparisons
 - Target groups: Helsinki city employees and offices, politicians, experts, students and citizens interested in environmental matters
 - Open data since 2015 (still developed)
- <https://hri.fi/data/fi/dataset/helsingin-ymparistotilasto/resource/46b71abc-aab6-4785-9e6b-124e49199077>
- Future needs studied in 2019 (user stories, interface solution, visual look, content, flexibility, GIS...? -> service design planned)



Helsinki environmental statistics

Helsinki environmental statistics is a network statistic service, where the most important variables which represent the condition of the environment and pollution are collected. The network is maintained by the Helsinki Environment Centre, and it is updated normally every year.

Statistics-service

You will find the statistics under the headline "Statistical base". You will get the desired information by first choosing the theme and then the more detailed theme. Information can be limited by choosing a headline. The choosed information will come into sight as a table and underneath the table there is more information about this theme. You can change the table in the form you want (for example Excel) and it is also possible to edit it to a picture. More information can be found on the top of this page on the "Help"-link.

Picture base-service

On the left menu of this page under the headline "Picture base" there is diagrams and maps about different themes.

My queries

You can also save your queries on "My queries"-button. The saved queries can be found under the headline "My queries" on the left menu of the page.

Search-function

At the left on the bottom of this page you can find a Search-function, it will help you to find tables, which are including the index-word or letter combination you have choosed. The Search-function shows you only the tables, where the index-word appears. If you want to remove the limitation, delete the index-word and click "Search".

[Give feedback about the environmental statistics](#)

Helsingin seudun PxWeb-tietokannat

suomi

Helsingin ympäristötilasto >>

Energia

Helsingin energiankulutus on kasvanut selvästi viime vuosikymmenissä. Erityisesti sähkölämmityksen määrän runsas kasvu on lisännyt sähkönkulutusta. Uudisrakennusten energiatehokkuuden paraneminen ja korjausrakentamisen energiansäästötoimenpiteet ovat alentaneet rakennuskannan ominaiskulutusta, mutta asuminen ja palvelujen määrän kasvu ovat lisänneet energiankulutusta. Helsingin kaupunki on energiansäästösopimusten puitteissa tehnyt töitä oman rakennuskannan lämmön- ja sähkönkulutuksen pienentämiseksi.

Helsingin energiantuotanto on pitkään ollut edistyskellista sähkön ja kaukolämmön yhteistuotannon hyvän hyötysuhteen sekä laajentuneen kaukolämpö- ja jäähdytysverkon ansiosta. Energiantuotannon päästöjen vähentyminen on kuitenkin pysähtynyt vuoden 2000 jälkeen.

Tilastoihin pääset valitsemalla alaotsikon >> 1_Energian_kulutus >> 1_Energiankulutus sektoreittain pääkaupunkiseudulla 1990-2015

- 1 Valitse taulukko
- 2 Valitse muuttajat
- 3 Näytä taulukko

Energiankulutus sektoreittain pääkaupunkiseudulla 1990-2015

Valitse muuttajat Tietoja taulukosta

Merkitse valintasi ja valitse esitysmuoto (taulukko ruutuun tai tiedostomuoto). Valintaohje
*-merkityille muuttajille tarvitaan ainakin yksi arvo

Kunta *	Sektori *	Muuttuja *	Laskentatapa *
<input type="checkbox"/> Yhteensä 5 Valittu 0	<input type="checkbox"/> Yhteensä 10 Valittu 0	<input type="checkbox"/> Yhteensä 2 Valittu 0	<input type="checkbox"/> Yhteensä 2 Valittu 0
<input type="checkbox"/> Helsinki <input type="checkbox"/> Espoo <input type="checkbox"/> Vantaa <input type="checkbox"/> Kaunianen <input type="checkbox"/> PKS yhteensä	<input type="checkbox"/> Kaukolämpö <input type="checkbox"/> Erillislämmitys <input type="checkbox"/> Sähkölämmitys <input type="checkbox"/> Kattausaika <input type="checkbox"/> Henkilöautot <input type="checkbox"/> Muu liikenne	<input type="checkbox"/> Kokonaiskulutus (GWh) <input type="checkbox"/> Asukaskohtainen kulutus (KWh/as)	<input type="checkbox"/> Lämpötilatorjunta <input type="checkbox"/> Lämpötilatorjaimaton
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Environmental attitude survey

- traditional survey conducted since 90's, latest 2017 in the cities of Helsinki and Vantaa
- Finds out the attitudes of residents regarding the state of the environment, environmental protection and urban development
 - study looks at attitudes, ways of traveling and consumption choices, as well as opinions on urban and traffic planning
 - particular attention is paid to environmental attitudes and environmental behavior
- random sample of the population aged 18–74 in Helsinki and Vantaa, the sample size was 3,000 in Helsinki and 2,000 in Vantaa
- The study was also also printed and published
- <https://hri.fi/data/fi/dataset/helsingin-ja-vantaan-ymparistoasennekyselyn-vastaukset>



HELSEINGIN JA VANTAAN YMPÄRISTÖASENNEKYSelyn VASTAUKSET - EXCEL-TIEDOSTO

DATA JA RESURSSIT
CSV-tiedosto
Excel-tiedosto

LISENssi
Creative Commons Nimeä 4.0

KÄYTTÄJÄARVIO
★★★★☆ (2)

TILASTOT
Viimeiset 30 päivää. Päivitetään päivittäin.

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TILAA ILMOITUKSET MUUTOKSISTA
Sähköpostiosoitteesi: TILAA

Thank You!

Helsinki's climate work www.stadinilmasto.fi pages. Order also newsletter! (in Finnish)

Twitter: [@stadinilmasto](https://twitter.com/stadinilmasto), [@ilmastokumppani](https://twitter.com/ilmastokumppani)

