



ASTROSAT

ThermCERT project



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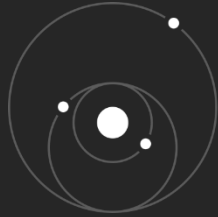


Sabine Lazuhina

04/10/2018

Seville

About Us



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A brief history of ThermCERT

- ✓ **November 2012** - Winner of DLR Environmental challenge at the European Earth Monitoring Competition.
- ✓ **Oct 2015 – Feb 2017** – carried out a feasibility study in the framework of ESA Business Applications.
- ✓ **November 2017** - Astrosat signs a contract with E.ON Energy Solutions Ltd.
- ✓ **December 2017** – Astrosat signs a contract with ESA to carry out ThermCERT demonstration project within the ESA Business Applications programme. More information about the project: <https://business.esa.int/projects/thermcert>

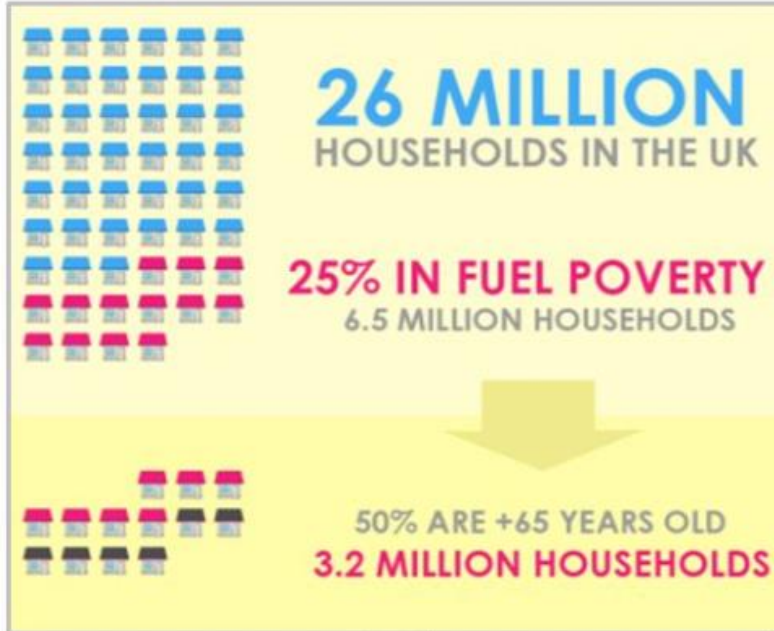


esa

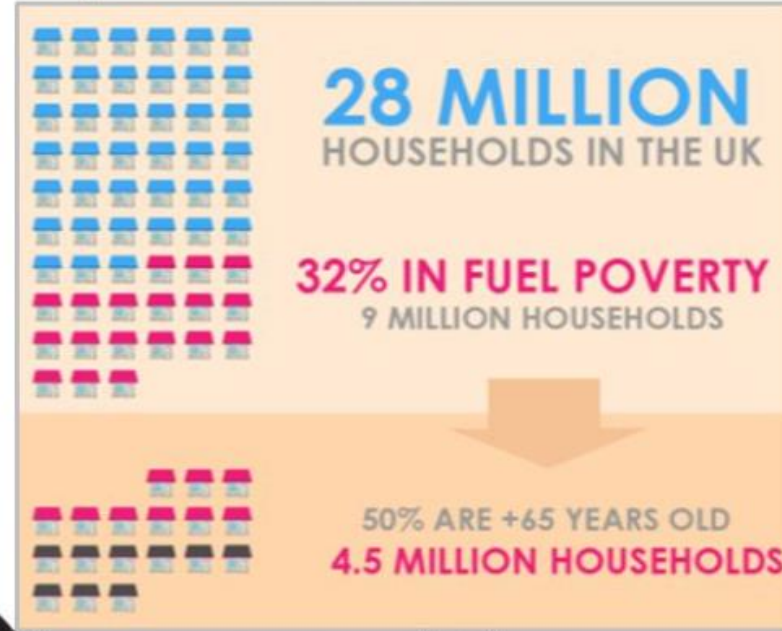


Identifying the problem

In 2011:



Projections for 2016:



Fuel poverty is caused by a convergence of 3 main factors:

- Low household income
- High energy prices
- Poor energy efficiency

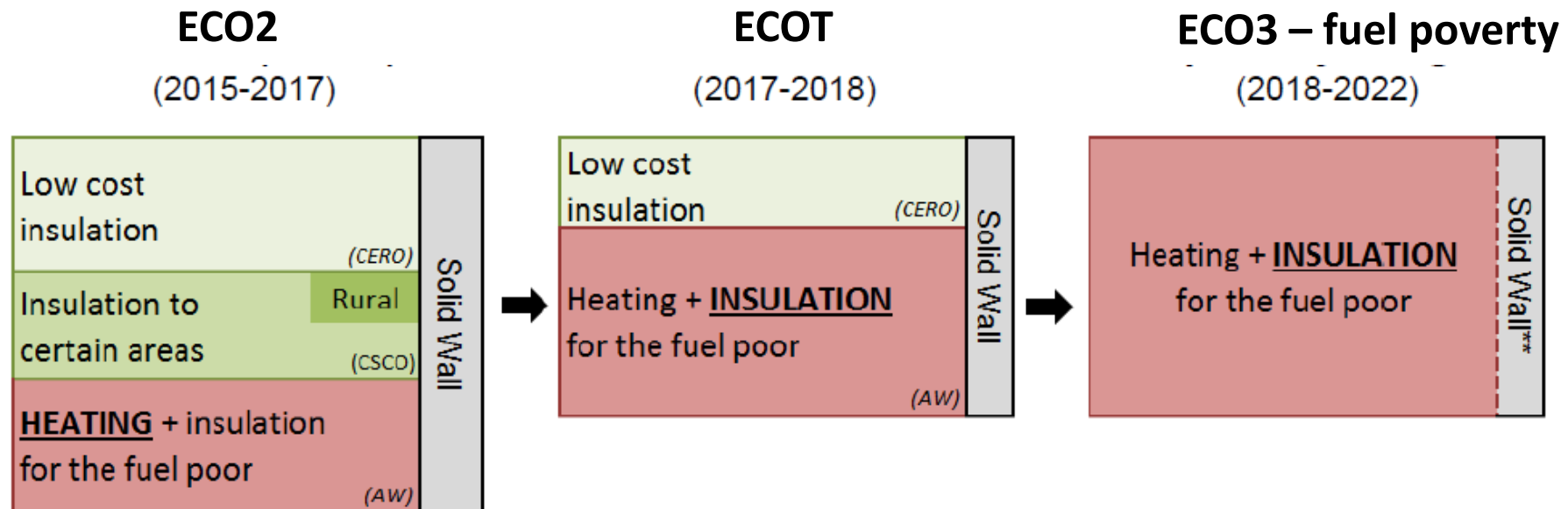
Sources:
ONS - 2011
DECC Report 2012
Ipsos MORI OFGEM - 2011

Source: www.myutilitygenius.co.uk

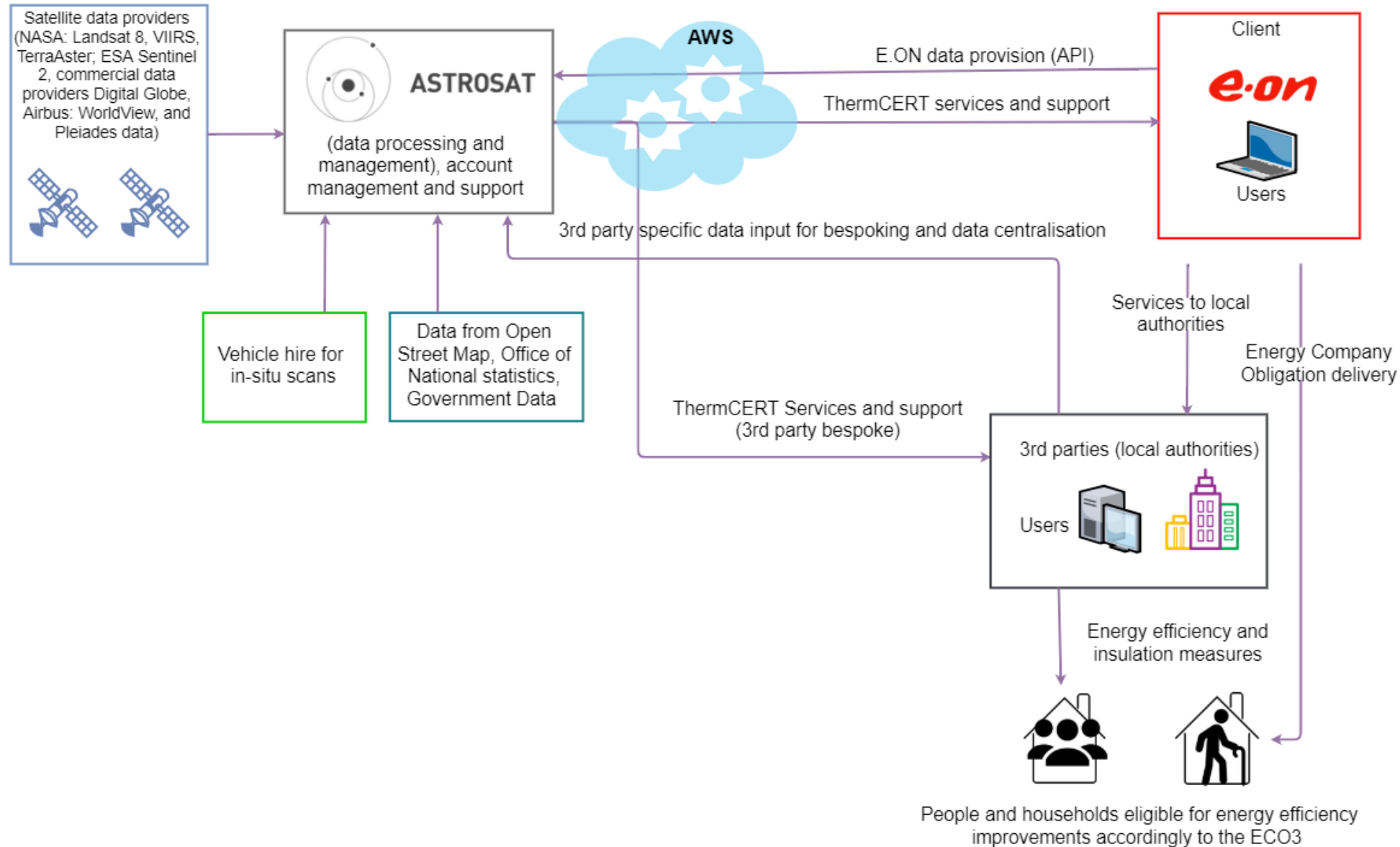
Identifying actors



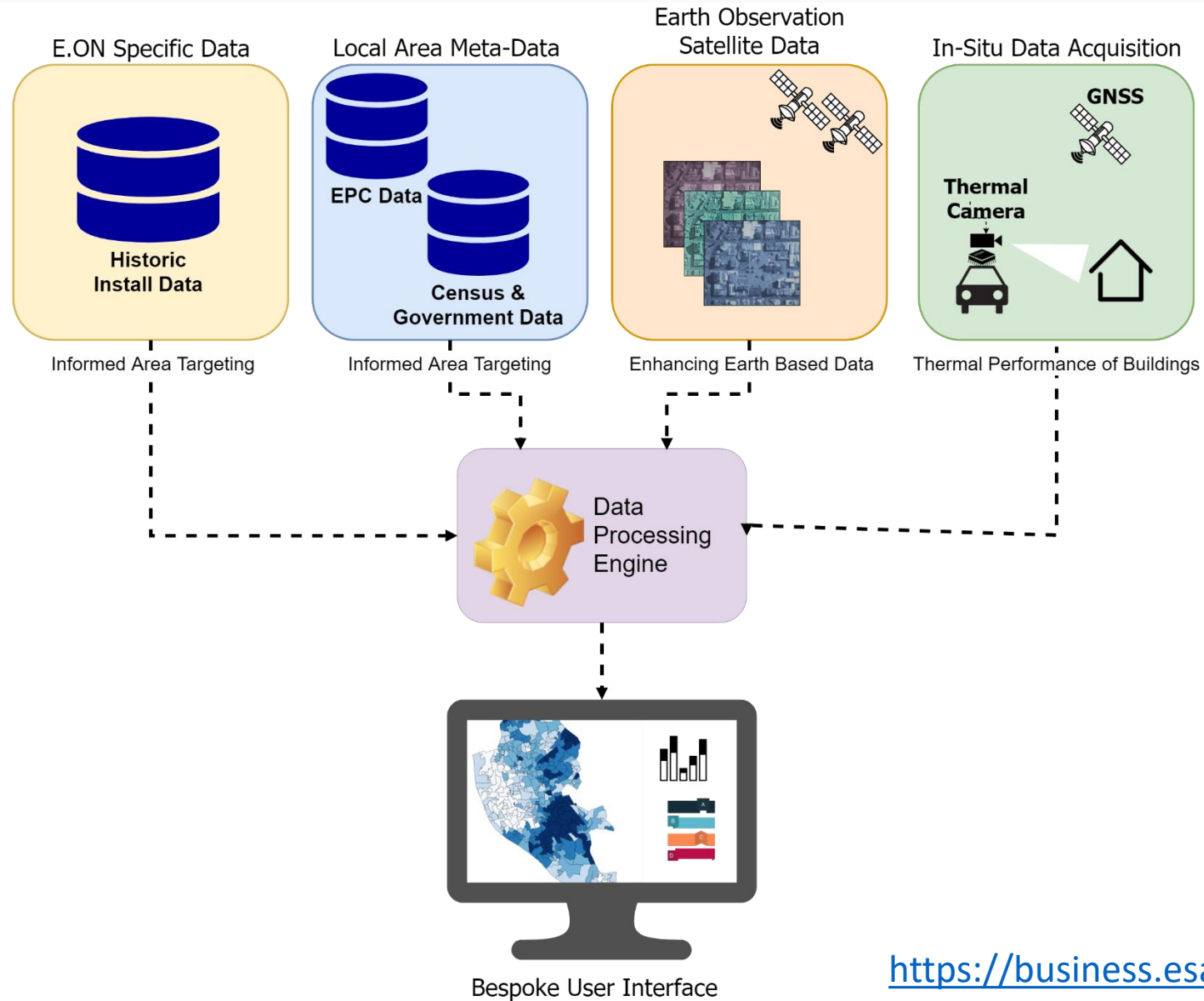
Making a positive difference
for energy consumers



ThermCERT proposed services and value chain



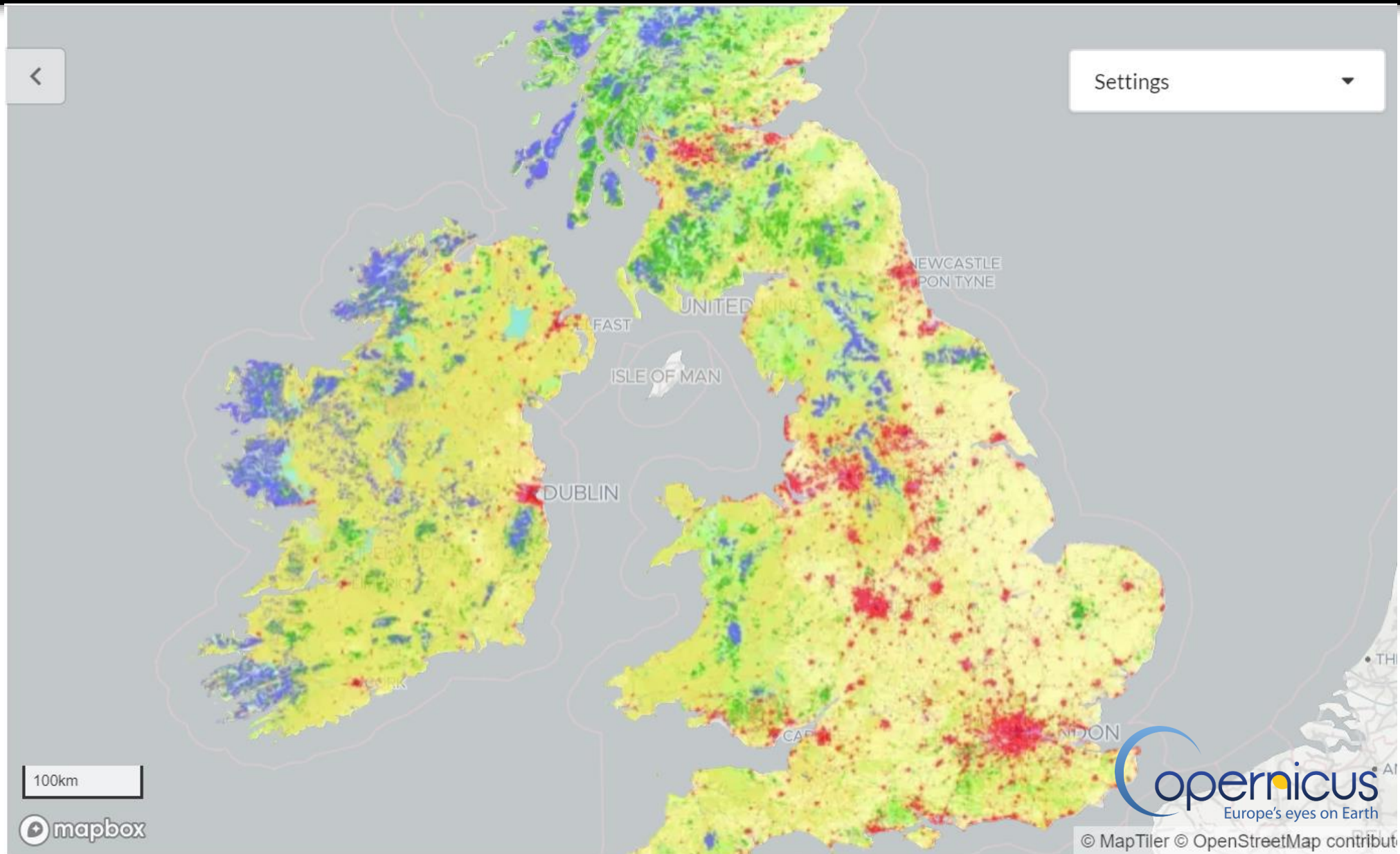
ThermCERT system overview



Satellite value add - Nighttime-lights color composite image by visible infrared imaging radiometer suite (VIIRS)



Satellite value add – Pan-European CORINE land cover



Source: <https://land.copernicus.eu/pan-european/corine-land-cover>

Satellite value add - Urban heat islands and areas of intensive thermal energy emissions.



■ Urban heat islands
from Landsat 8

* An urban heat island (UHI) is an urban area that is significantly warmer than its surrounding rural areas due to human activities.



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THANK YOU FOR YOUR ATTENTION!