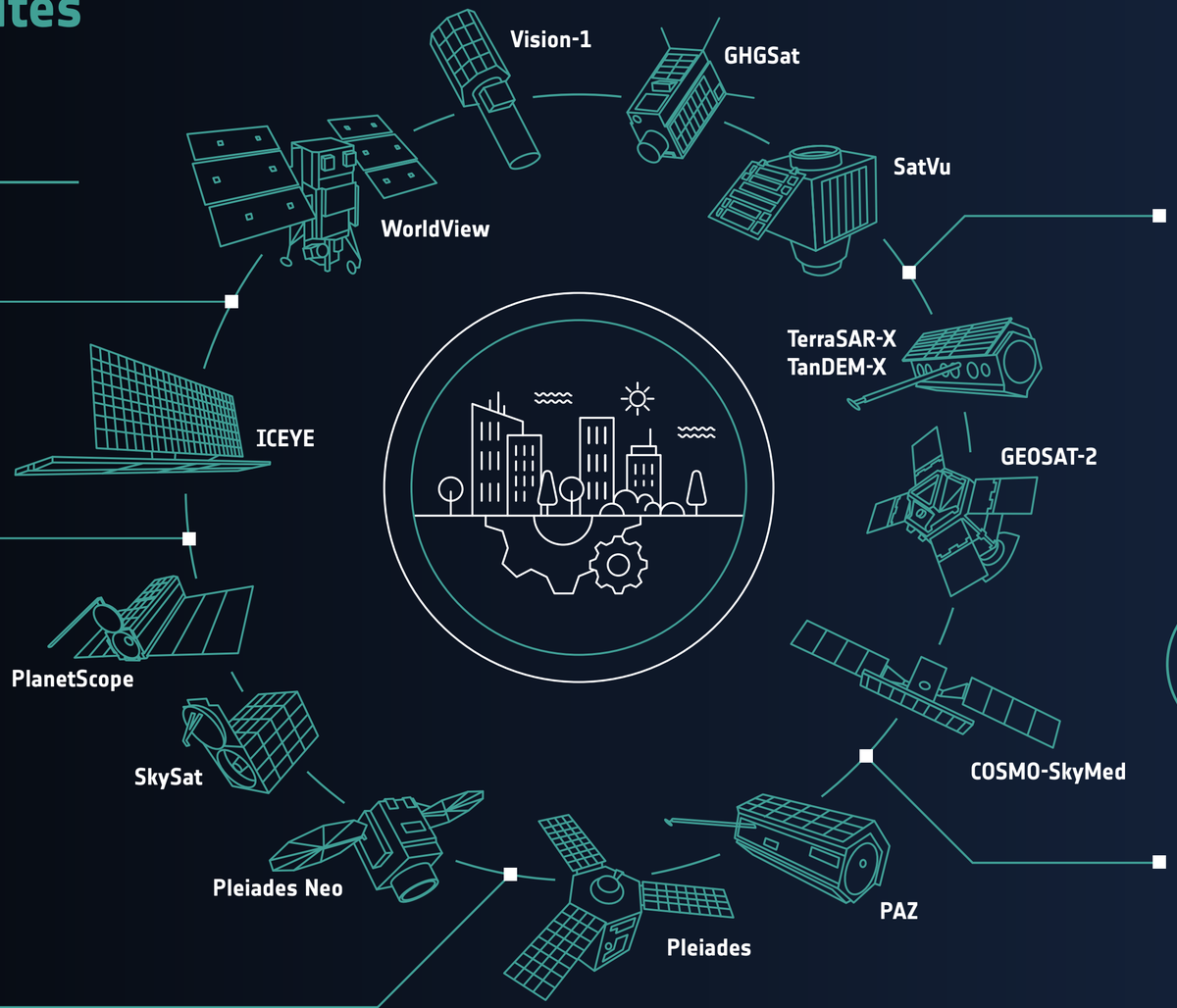
How **commercial satellites** are transforming **urban monitoring**



Urban perspectives

Commercial Earth observation (EO) missions are having an **increasing impact on urban monitoring**, providing detailed observations across multiple data domains to support city planning and tackle urban challenges

Expanding collection

ESA's Third Party Missions (TPM) programme is continuously working with new providers to **grow its collection of commercial missions**. This aim aligns with ESA's EO Science Strategy, which highlights the importance of fostering links with the commercial EO market.

The current TPM collection includes several urban monitoring missions with more expected to be added in the future

Exploring synergies

Synergies between commercial and institutional missions **empower many key urban applications**. Data from GHGSat, for instance, have been analysed with Copernicus Sentinel-5P observations to monitor emissions from landfill sites near urban centres

Discover more about TPMs and data access:
earth.esa.int/eogateway/missions/third-party-missions

ESA Third Party Missions
Free commercial data for research and applications development

EARTHNET

esa

Facilitating research

Commercial TPM data are disseminated on a free basis to facilitate scientific and application development activities focused on key areas of urban research, including:

- **pollution detection**
- **sustainable development**
- **hazard detection**
- **heat maps**
- **climate models**

FACT BOX

80 **urban monitoring**
TPM projects supported since 2022

Emerging innovations

New data offerings from EO providers, including emerging companies not yet added to the TPM programme, are supporting innovative urban monitoring applications:

- **Commercial thermal infrared missions provide higher resolution imagery of heat islands in cities**
- **High resolution radar missions can better monitor small urban changes, such as land subsidence and building stability**
- **Optical observations can be processed into super resolution data with sharper details, enabling new applications**