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## Assessment of GHGSat's constellation one year after its first phase deployment

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Methane emissions from industrial activities represent a significant fraction of total greenhouse gas emissions. It is vital to provide industrial site operators with accurate and timely information about their emissions -- GHGSat's constellation was built for this purpose. Each of the constellation satellites can do multiple measurements of 150 km<sup>2</sup> domains each day with a pixel resolution of 25 meters allowing to detect, quantify and attribute emissions to a given facility. With 3 satellites currently in operation, this allows multiple measurements of a site in a year and help operators minimize their emissions.

We will present the performance of our instruments showing a column precision of 1% of background and a detection threshold of 100 kg/h for point sources. Examples from a variety of anthropogenic sources will illustrate the system capability. A statistical analysis of all detected emissions will serve to evaluate the distribution of global source rates, source intermittency and breakdowns by region and by sector. An estimate of emissions mitigated thanks to GHGSat's constellation will also be presented. Finally, the schedule of the next phases of the constellation will be outlined.