



SENTINEL-2 Optical High Resolution Mission for GMES Land Operational Services

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In the framework of the Global Monitoring for Environment and Security (GMES) programme, the European Space Agency (ESA) in partnership with the European Commission (EC) is developing the Sentinel-2 optical imaging mission devoted to the operational monitoring of land and coastal areas. The Sentinel-2 mission is based on a twin satellites configuration deployed in polar sun-synchronous orbit and designed to offer a unique combination of systematic global coverage, high revisit (five days at equator with two satellites) and high spatial resolution imagery (10/20/60m). The Multispectral instrument features 13 spectral bands, going from visible to short wave infrared domains. The instrument is designed to provide in orbit calibration, excellent radiometric and geometric performance, and with a capability to support accurate image geolocation and co-registration. The Sentinel-2 mission is more particularly tailored to the monitoring of land terrains, including vegetation and urban areas. Sentinel-2 will ensure data continuity with the SPOT and Landsat multi-spectral sensors, while accounting for future service evolution.