HIGHWAY
EO DATA SPACE

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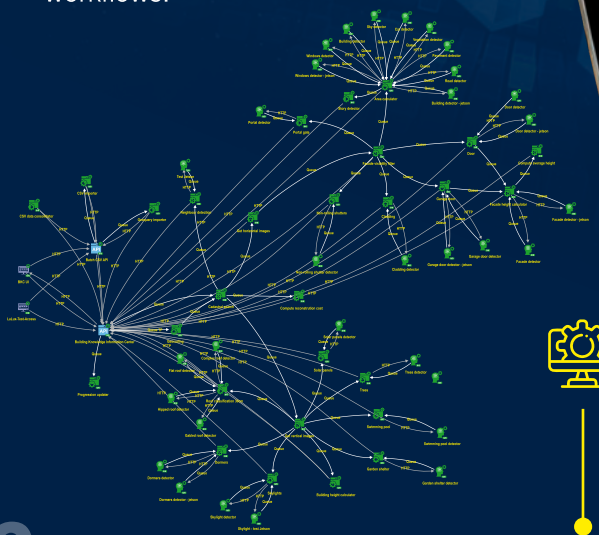
Enabling Seamless Data and Processing Access within the Digital Twin Earth Framework

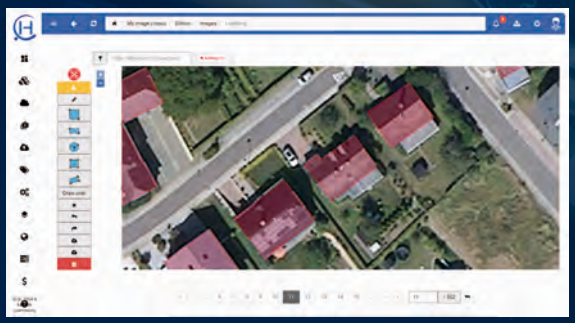
1 The HIGHWAY service serves as a pivotal conduit for integrating ESA Earth Observation Data into the Digital Twin Earth program through the **DestinE** (Destination Earth) initiative. It provides a streamlined, seamless environment for the exploration and utilization of data from key Earth observation missions, including:

cryosat
smos
swarm
aeolus
earthcare
proba-v

The datasets are made available in both their native formats and as Analysis-Ready Cloud-Optimized (ARCO) files.
For **ARCO** data, the service offers the **EOPF** data model, ensuring enhanced compatibility and efficiency in data analysis workflows.

2 The service is equipped with state-of-the-art tools designed to optimize data access and utilization. These include comprehensive data catalogues such as **API Open Search**, **WMTS**, **WMS**, and **STAC**, enabling efficient and targeted data discovery.





3 In addition, the service provides robust capabilities for data access, advanced data visualization, and sophisticated data processing tools. These tools support the generation of data pipelines and the development of artificial intelligence (AI) models, facilitating advanced analytical approaches.

4 Furthermore, the HIGHWAY service offers scalable processing capacities, supporting both cloud and high-performance computing **(HPC)** infrastructures. This ensures that users can efficiently manage a wide range of data processing tasks, from routine operations to complex, large-scale analyses. In doing so, the service significantly enhances the capacity to leverage Earth observation data within the Digital Twin Earth program, fostering innovation and driving insights across various domains.

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Destination Earth
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