

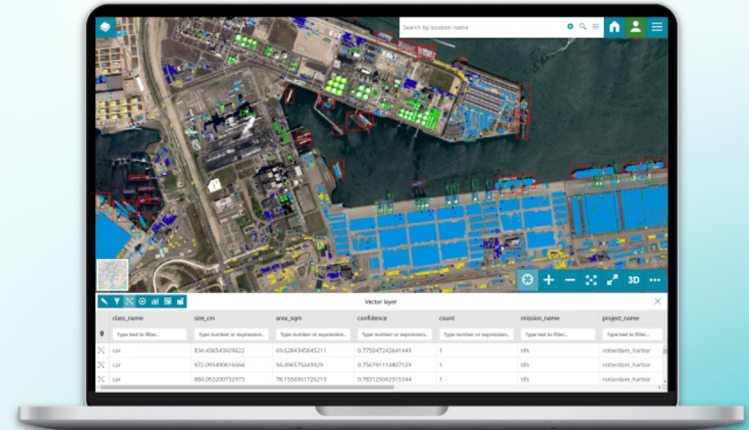


[\*\*CLICK TO KNOW MORE\*\*](#)



# Commercial Space Industry Unlocking Potential of Image Intelligence

GWF 2024

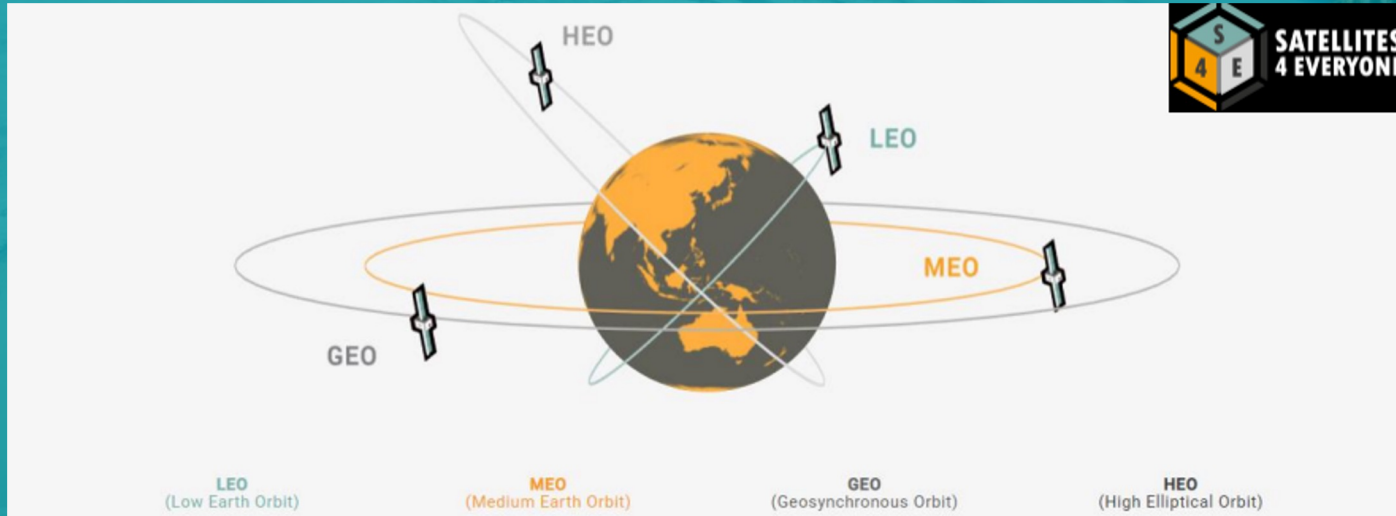


Dr. Sergey Sukhanov  
Co-founder & CEO



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[www.flypix.ai](http://www.flypix.ai) | [info@flypix.ai](mailto:info@flypix.ai) | +49 6151 2776497

# Orbits



[source: What is Earth Observation? A Tour of the Technology by JNCC]

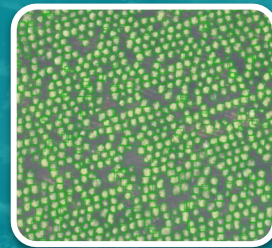
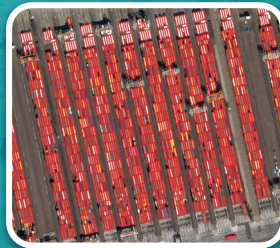
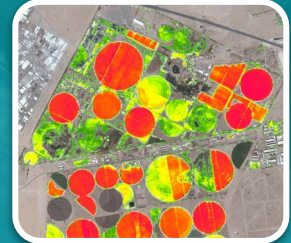
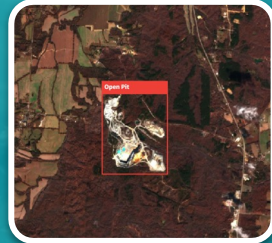
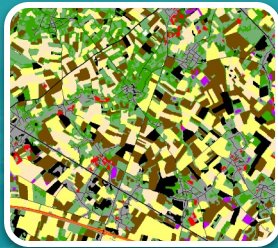
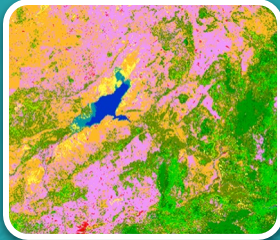
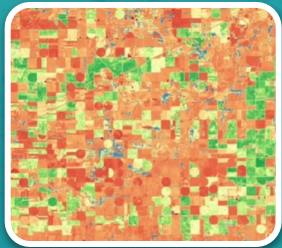
- There are thousands of satellites currently in orbit
- ~800 satellites are earth observation missions
  - Meteorology
  - Land
  - Marine

Hundreds of terabytes captured daily,  
showcasing every nook and cranny of Earth!

# Image intelligence for EO



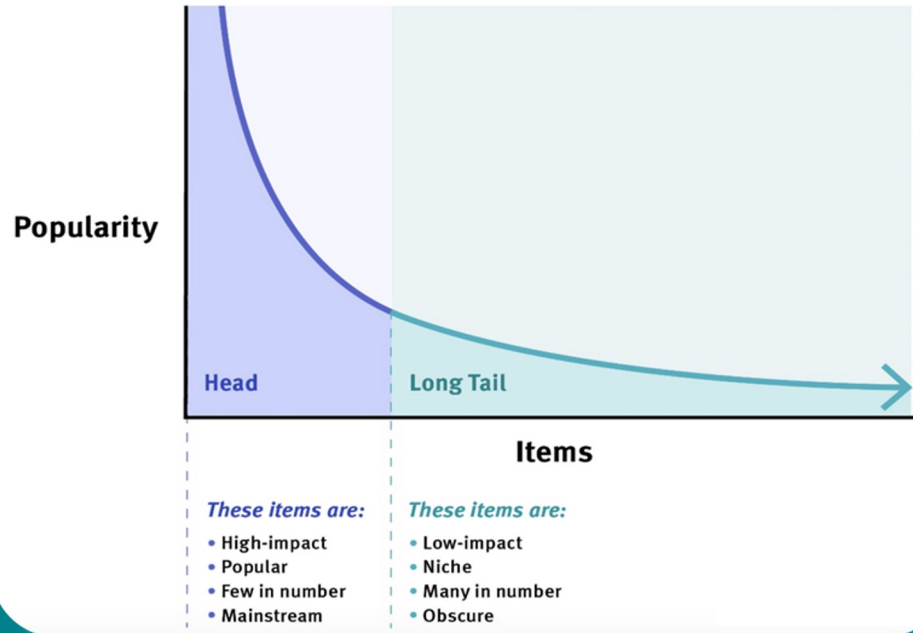
- Low/High-res applications



# The Long Tail Problem/Opportunity



## The Long Tail



### Head

- Insurance
- Defence & Intelligence
- Disaster management
- Etc.

### Tail

- Civil Engineering
- Ecology
- Forestry
- Agriculture
- ...



# Options Available on the Market

No expertise required



 **Outsource development**

Expensive

Affordable

 **Geospatial products**

 **No code AI platforms**

AI expertise required



Count all these trees



Detect and measure all broken cement blocks





How many birds are there? |



How many containers are there? |

---



Return me all building footprints



# ...and thousands of other commercial use cases

- that require EO data
- are to be executed by non-AI/EO personnel
- significantly benefit from automated processing (speed, accuracy, cost)

# The Vision of FlyPix AI



*“Provide single-click access to earth observation insights”*

# FlyPix AI Platform



Data Providers



Customer Application



Platform with Application  
Templates & AI capabilities



# FlyPix AI Value Proposition



Extracts semantics from aerial and satellite images



Designed for non-experts

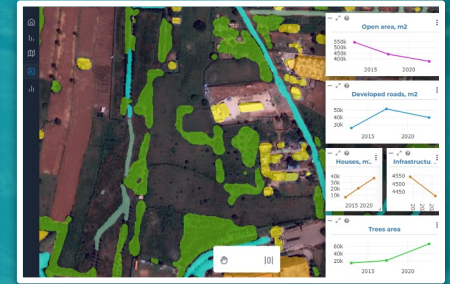


Allows building new applications in few clicks



Cost-efficient and scalable

Validated to offer up to a **100x** cost reduction for customers



ID	AREA	AREA	AREA	HEIGHT	CONFIDENCE	CLASS
Type	Number of polygons	Type	Number of polygons	Type	Number of polygons	Type
4671256441214...	3300.89	1024.87	11028.44	1	99.8	retailer-car
4737080480101...	3339.23	1115.04	12002.33	1	99.7	retailer-car
9339191750000...	3282.4	1043.32	14456.27	1	99.7	retailer-car
444400000744010...	3281.05	1087.05	11701.03	1	99.7	retailer-car

# How it works



1 Upload/Connect to EO data



2 Apply/Create AI model for your custom task



3 Get necessary insights



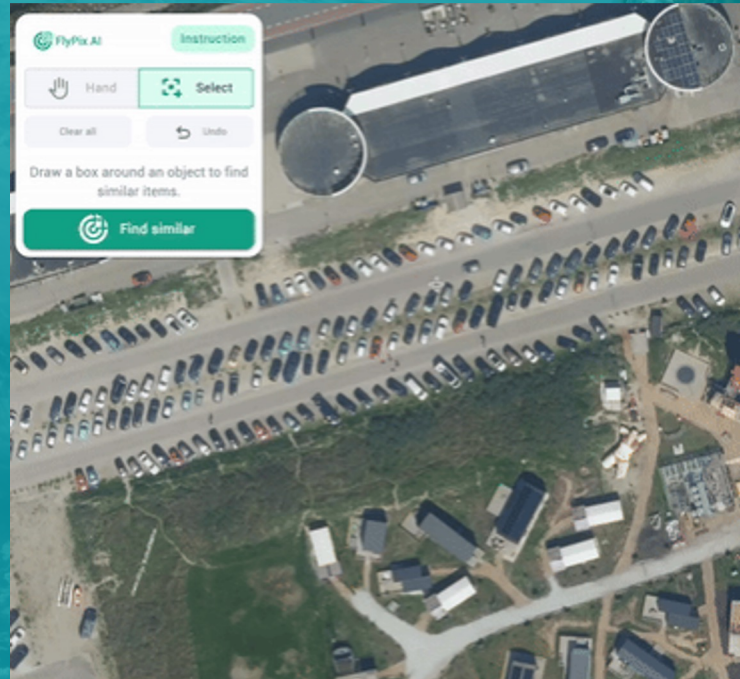
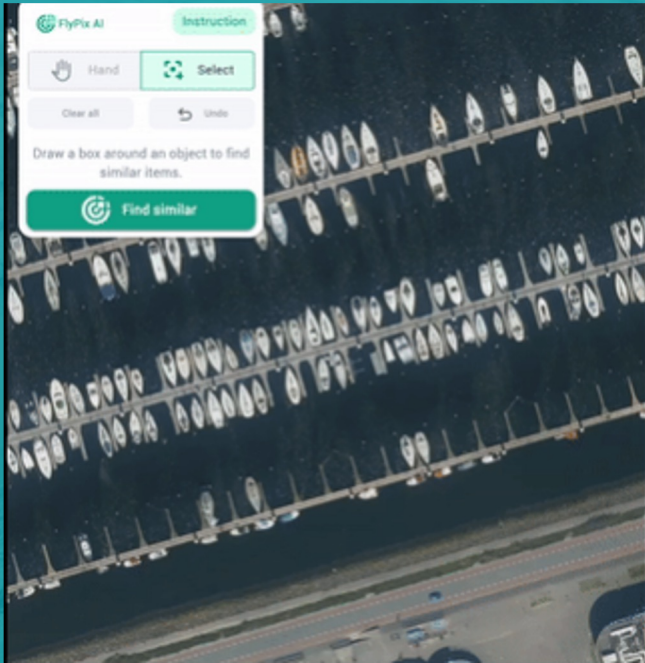
4 Decide and Act

4

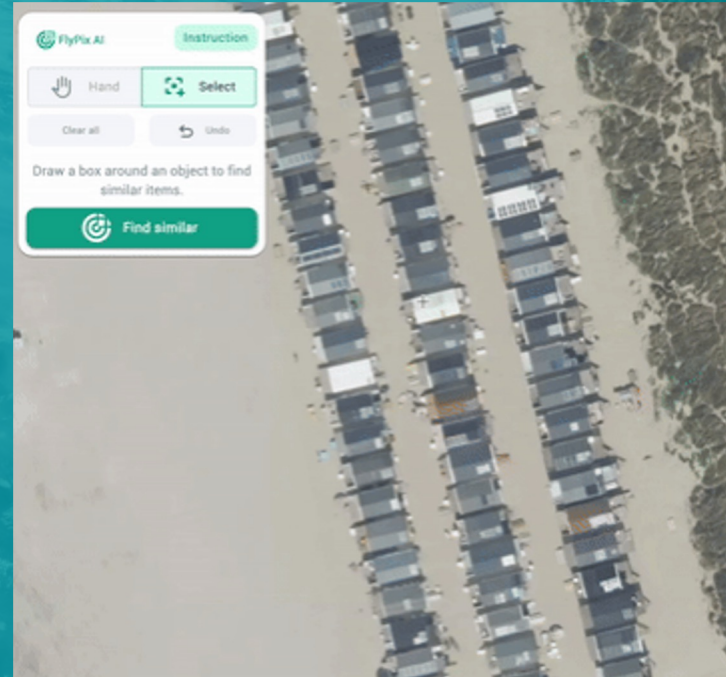
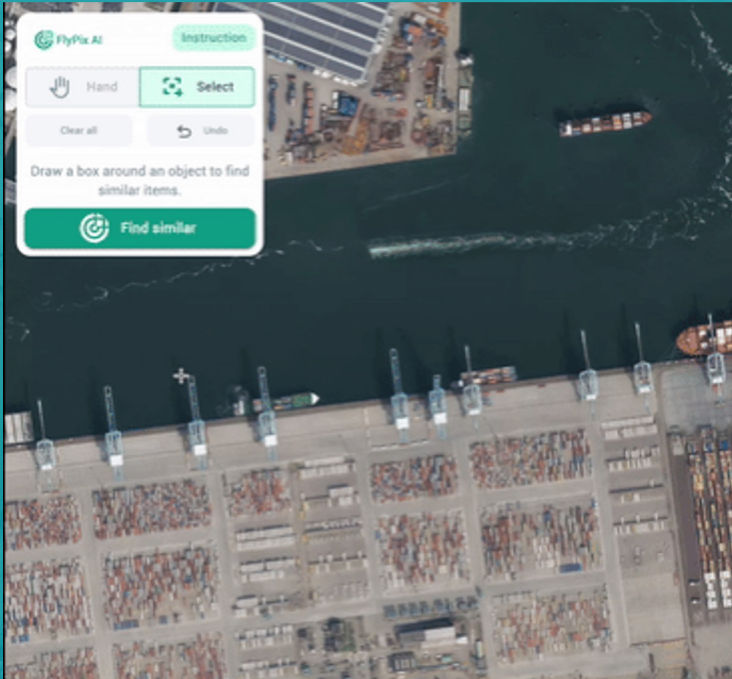
simple steps for instead of weeks/months of work and inflated budgets



# Establishing a new model



# Establishing a new model





Count all these trees



Detect and measure all broken cement blocks

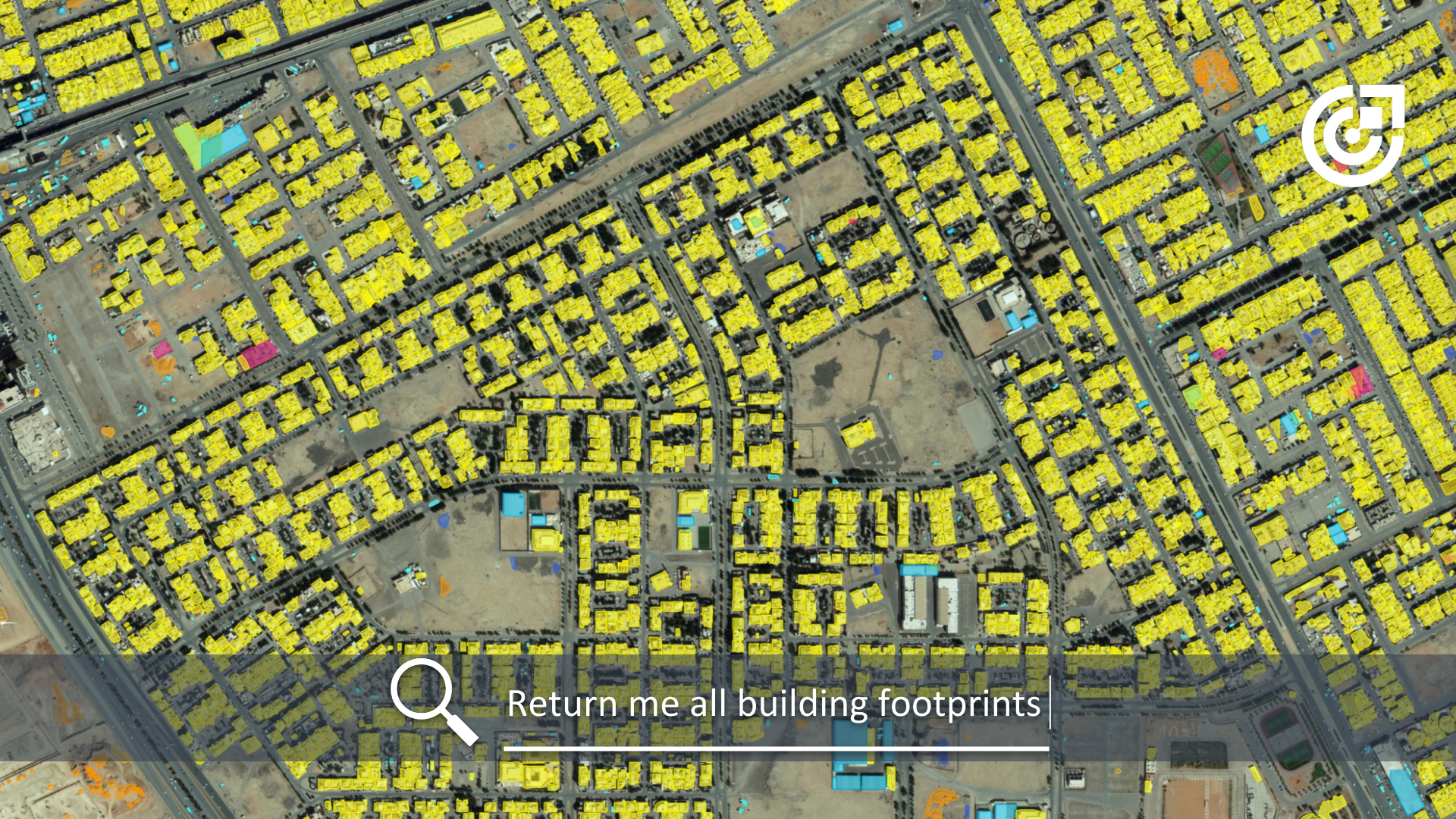


How many birds are there? |



How many containers are there?

---



Return me all building footprints

# Geospatial Analytics as a Service



Flexible Pricing to fit companies of all sizes



**SUBSCRIPTION**

**Fixed amount of data  
processing per  
month**

Small companies



**PAY AS YOU GO**

**Flat price per GB  
of processed data**

Mid-large companies



# Achievements & Awards



Award-winning AI-  
backbone  
technology



AI4EO Winner 2023



BUSINESS  
INCUBATION  
CENTRE

Hessen



# Try for free

[www.flypix.ai](http://www.flypix.ai)

... and explore more use cases from all over the world



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+49 6151 2776497



# Backup

# Technical Capabilities



Object localization



Object properties analysis



Dynamic area  
monitoring



Anomaly detection



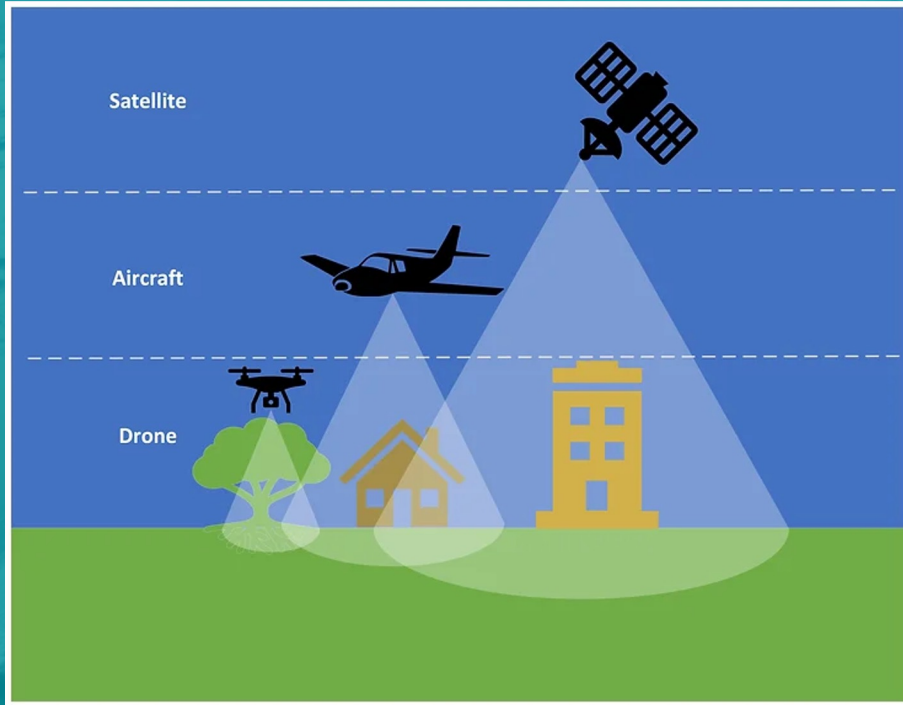
Tracking over time



Custom model refinement



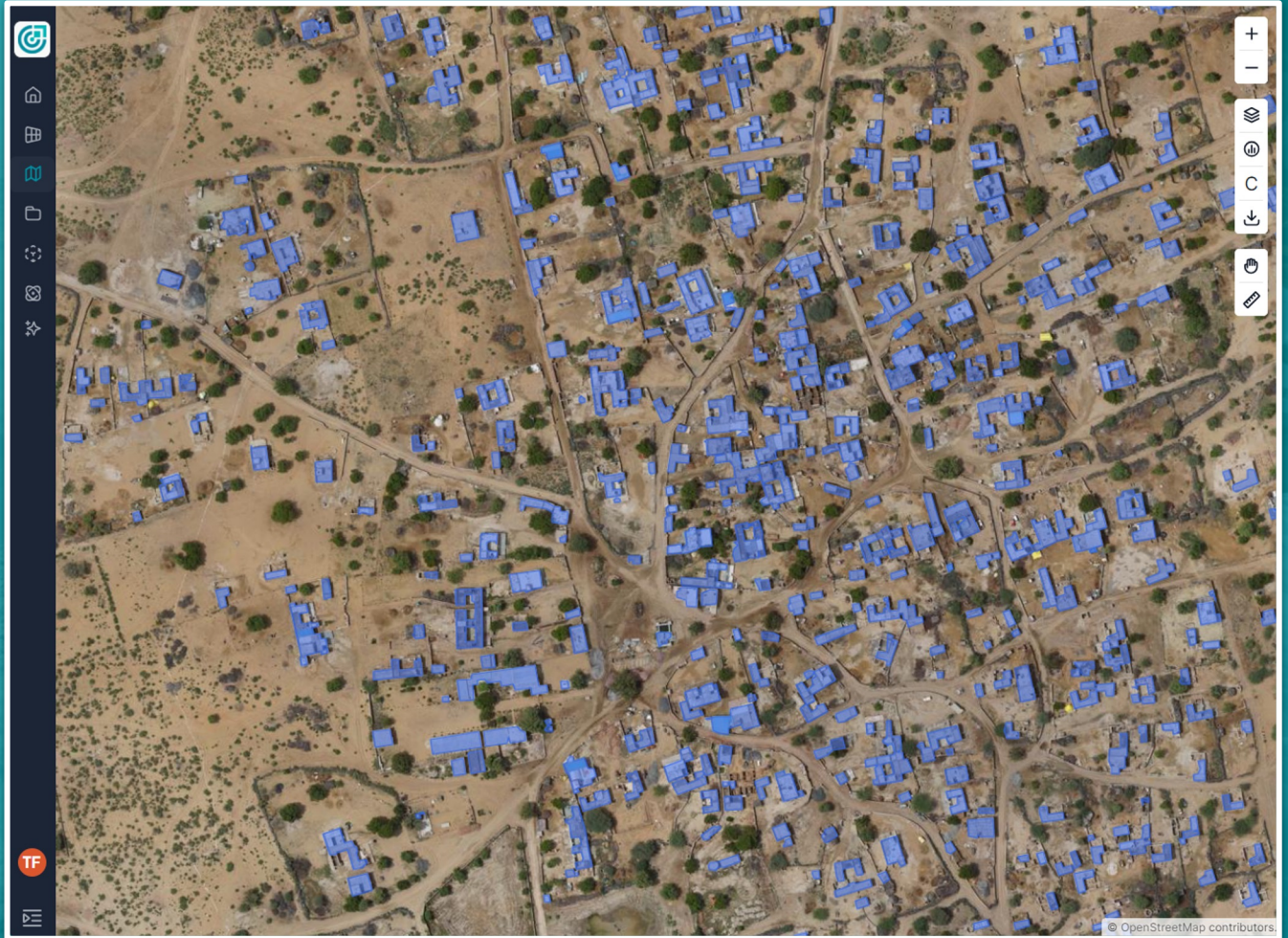
# Data



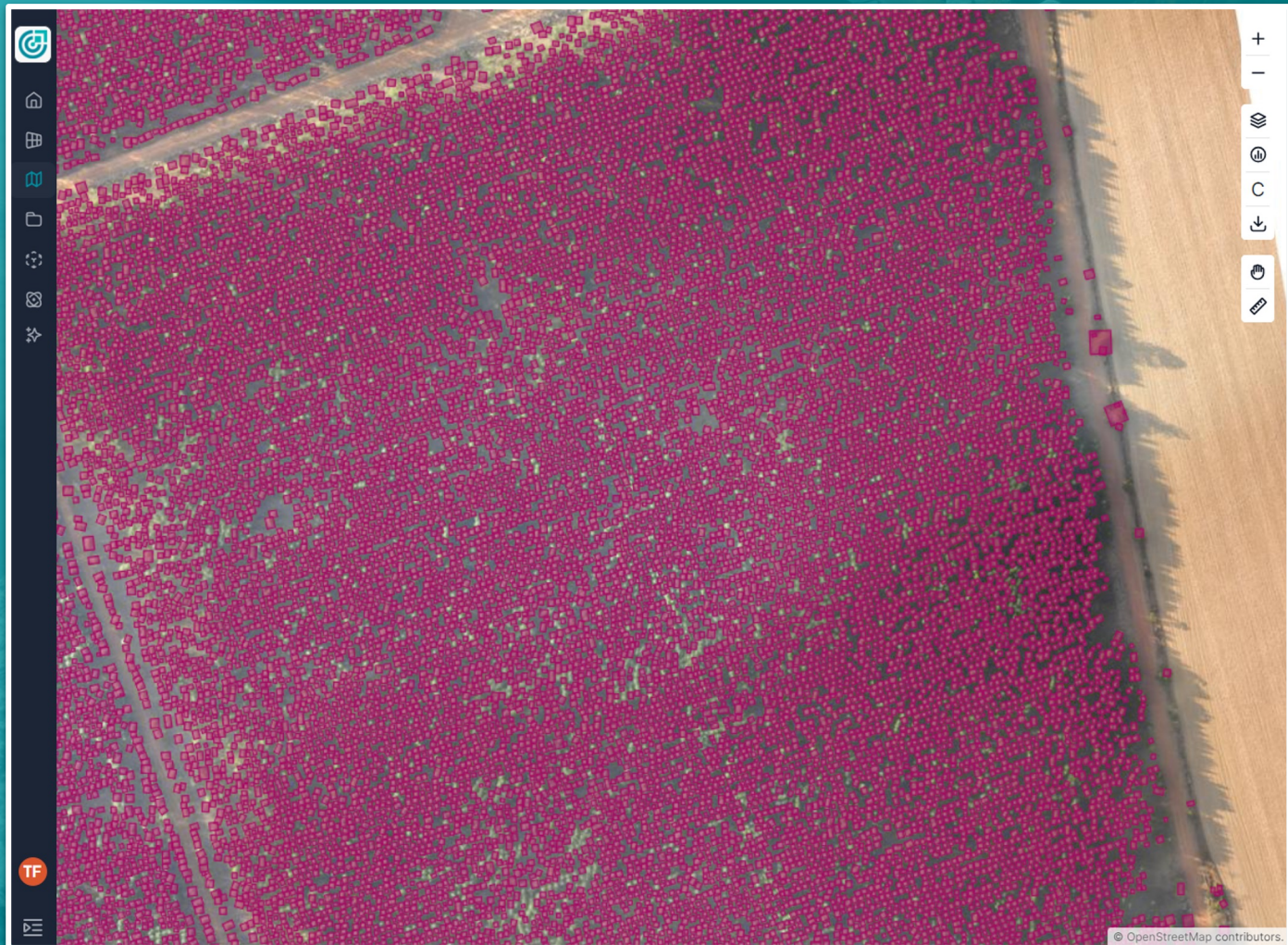
- Limiting factor
- Expensive
- Processing is difficult



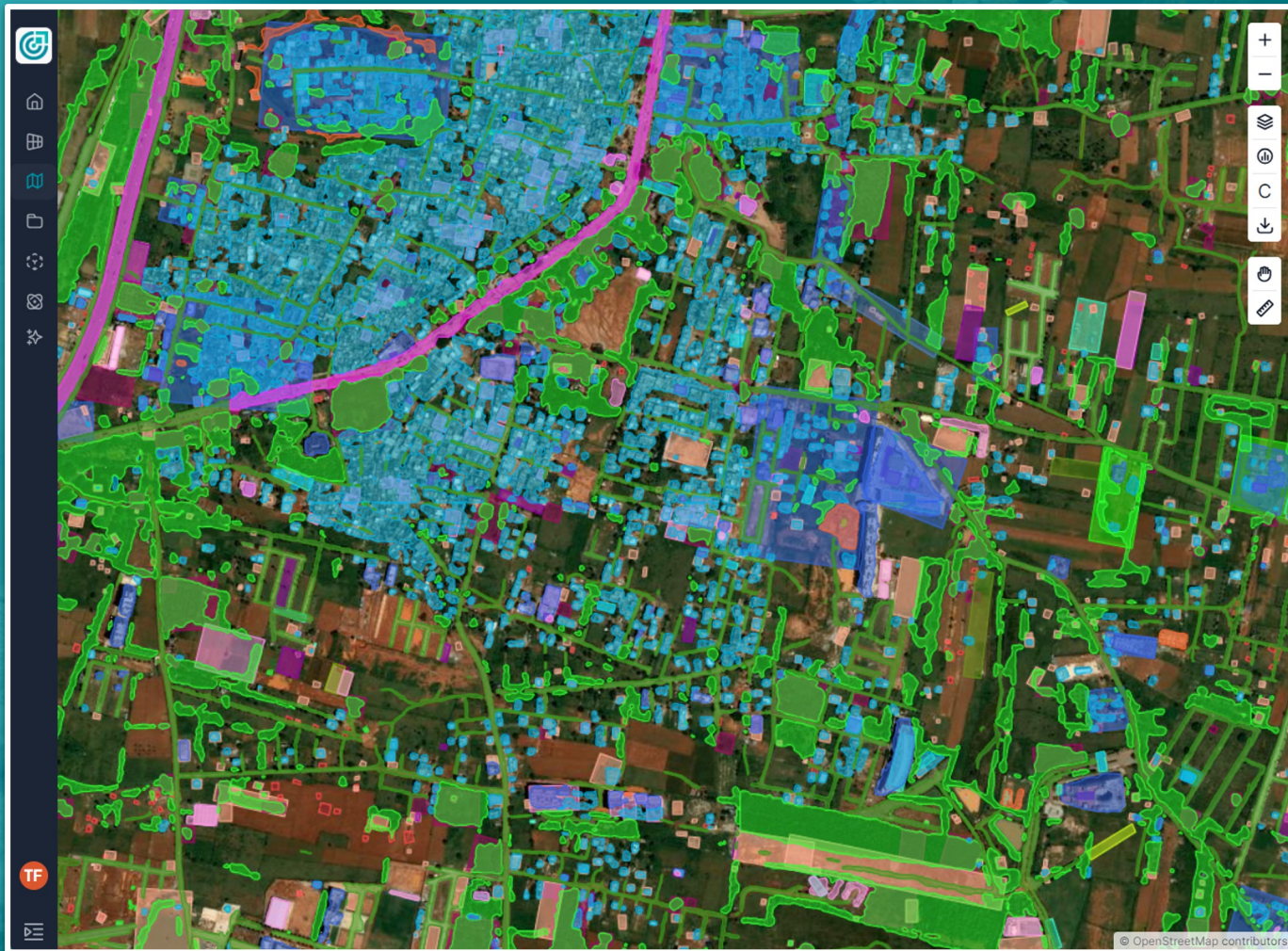
# Example



# Example

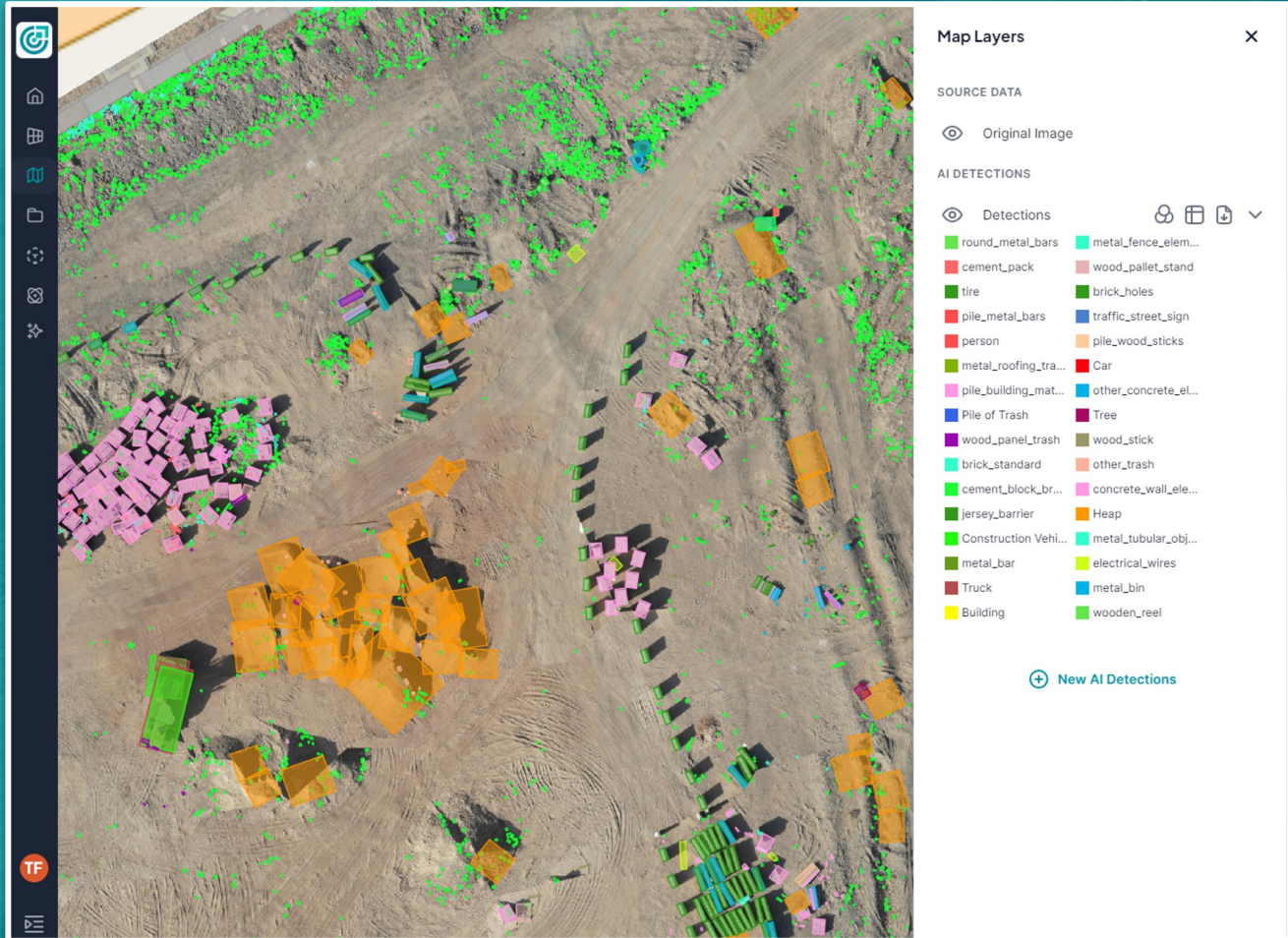


# Example





# Example



The image displays an aerial view of a construction site with various objects highlighted in 3D bounding boxes. The objects are color-coded according to the legend on the right. The legend is titled "Map Layers" and includes a "SOURCE DATA" section with "Original Image" and an "AI DETECTIONS" section with "Detections".

**Map Layers** ✕

SOURCE DATA

- Original Image

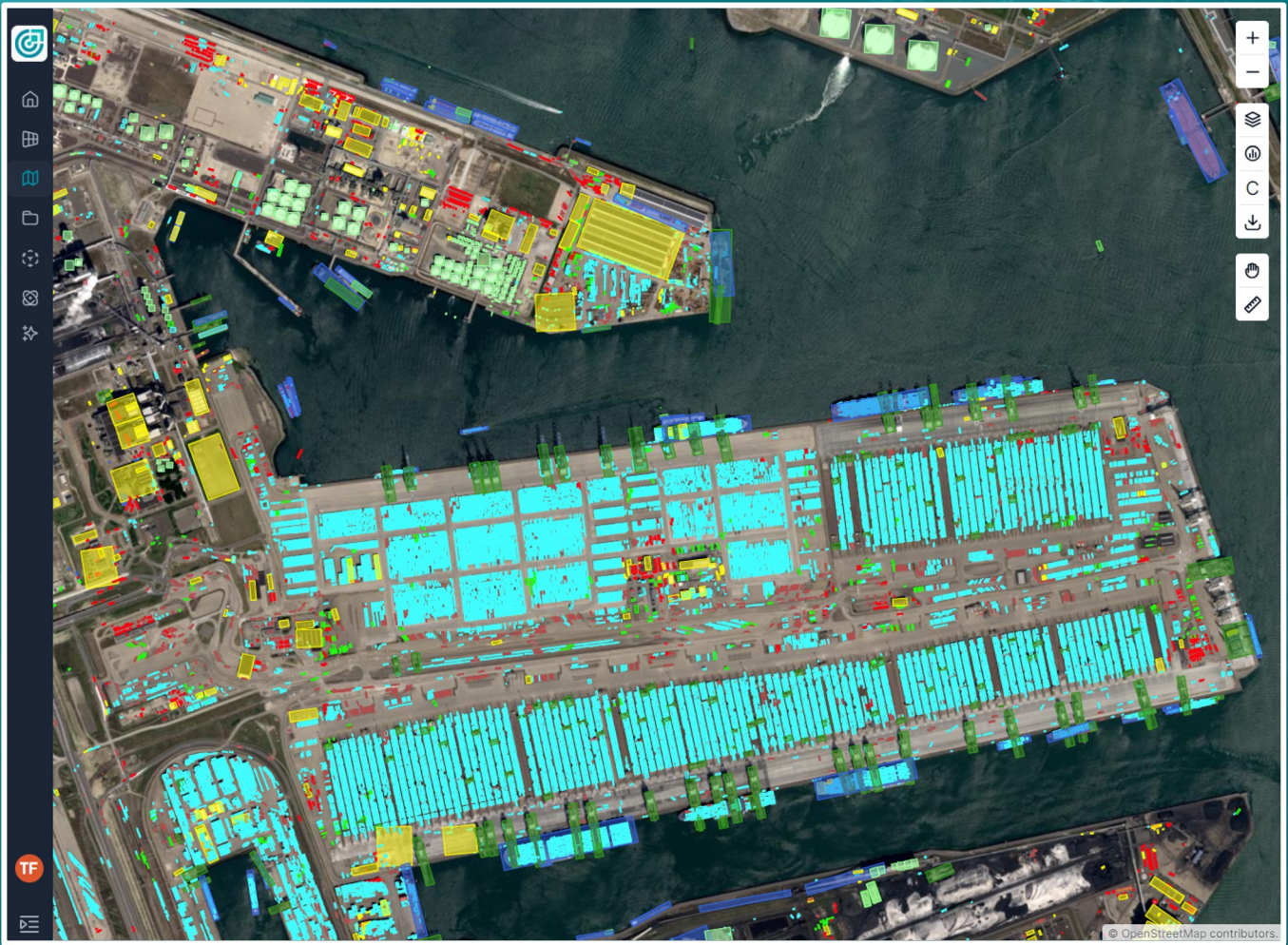
AI DETECTIONS

Detections 🔄 📄 📄 📄 ⌵

round_metal_bars	metal_fence_elem...
cement_pack	wood_pallet_stand
tire	brick_holes
pile_metal_bars	traffic_street_sign
person	pile_wood_sticks
metal_roofing_tra...	Car
pile_building_mat...	other_concrete_el...
Pile of Trash	Tree
wood_panel_trash	wood_stick
brick_standard	other_trash
cement_block_br...	concrete_wall_ele...
jersey_barrier	Heap
Construction Vehi...	metal_tubular_obj...
metal_bar	electrical_wires
Truck	metal_bin
Building	wooden_reel

[+ New AI Detections](#)

# Example



# Example

