

# Multi-sensor labeling platform

for robotics and autonomous driving

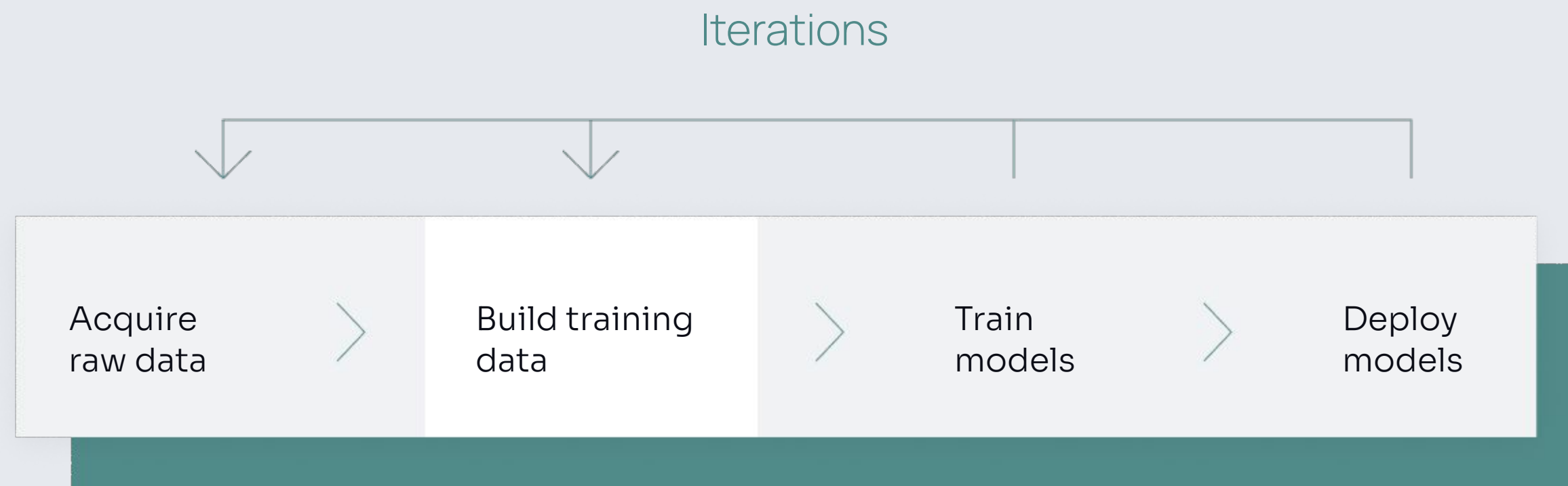


## Helping you to build your multi-sensor training data

Automotive and robotics companies are increasingly leveraging lidar, radar and camera sensors simultaneously during labeling and deployment

>70% of ML engineers spend >50% time on building training data

Segments.ai integrates with your pipelines and infrastructure to help build multi-sensor training data iteratively and at scale





Offering tooling,  
services and  
experience



### Labeling tooling

We provide the best multi-sensor labeling tooling, ready to be used by your internal labeling team, external labeling team or computer vision engineering team



### Labeling services

We onboard a full-time expert labeling workforce that specializes in your labeling specifications

optional



### Labeling advisory

We bring our PhD expertise along to help you improve your labeling specifications, pipelines and strategies

optional





With a sole focus on  
the hardest  
multi-sensor  
perception tasks







We allow you to  
leverage  
cutting-edge  
technologies



### Point cloud streaming

Stream points to surpass user hardware limits and enable huge point clouds and dynamic point cloud merging



### AI-powered tooling

Leverage AI to provide labelers with tools to label more quickly and more accurately



### Pre-labeling

Leverage publicly available or customer models to initiate labeling flows



### Active learning

Set up advanced workflows leveraging selection and multi-step assignment techniques



### 2D-3D projections

Project annotations from one modality to another to speed up labeling



### Generative AI

Use our own stable diffusion models for labeling and correction purposes



### Early fusion

Build integrated interfaces and leverage voxel representations to make the switch to early fusion as opposed to traditional late fusion techniques



### 3D reconstruction

Generate higher-order data formats from camera streams to speed up labeling



We are working with innovative and forward-thinking customers



**Andres Milioto**

Sr. Computer Vision Engineer at [Scythe Robotics](#)  
Author of [SemanticKITTI](#) and [RangeNet++](#)

Segments.ai's 2D & 3D ML-powered tools boost our labeling efficiency significantly. Their labeling/reviewing flows, Python SDK, and webhooks have been game changers for us. Their platform is now seamlessly integrated with our active learning pipeline.

“







## You find all required interfaces and tools

### All data types

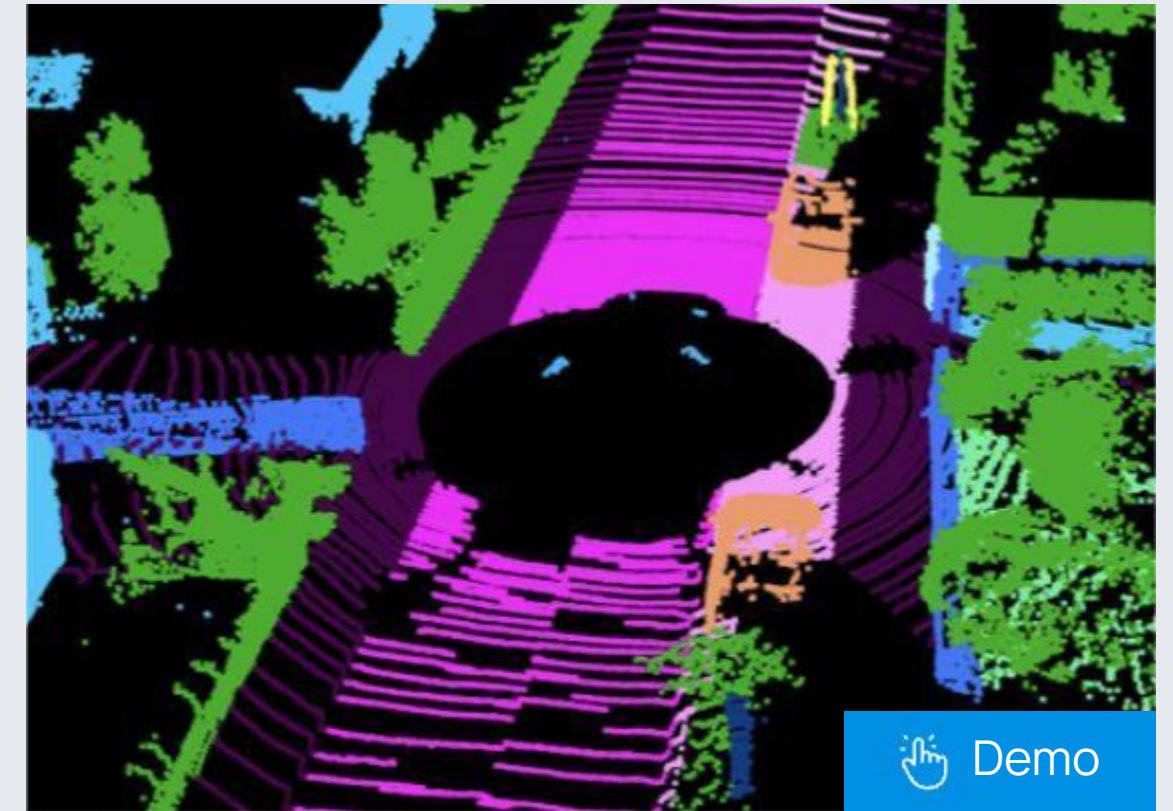
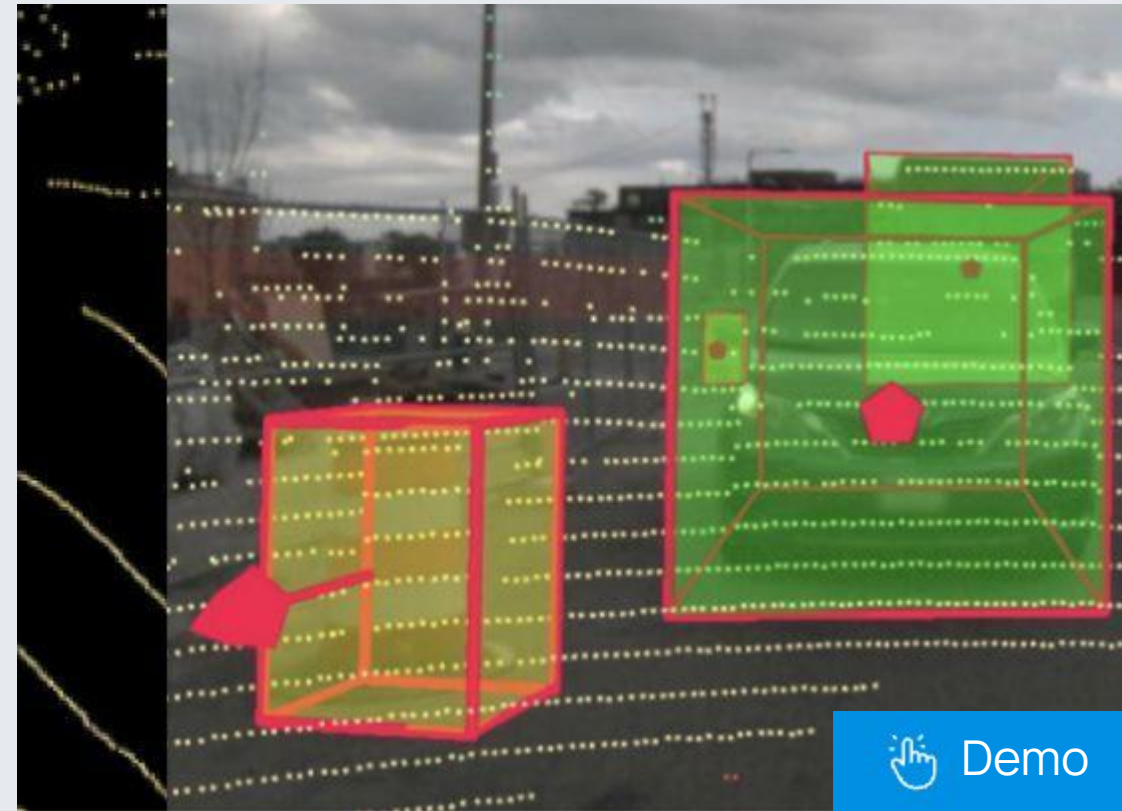
Including images & image sequences, point clouds & point cloud sequences, point clouds with attached camera streams, etc.

### All annotation types

Incl. 2D bounding boxes & 3D cuboids (demo), 2D/3D polylines, 2D/3D polygons, 2D/3D keypoints, 2D/3D segmentation (2D demo, 3D demo)

### Various add-ons

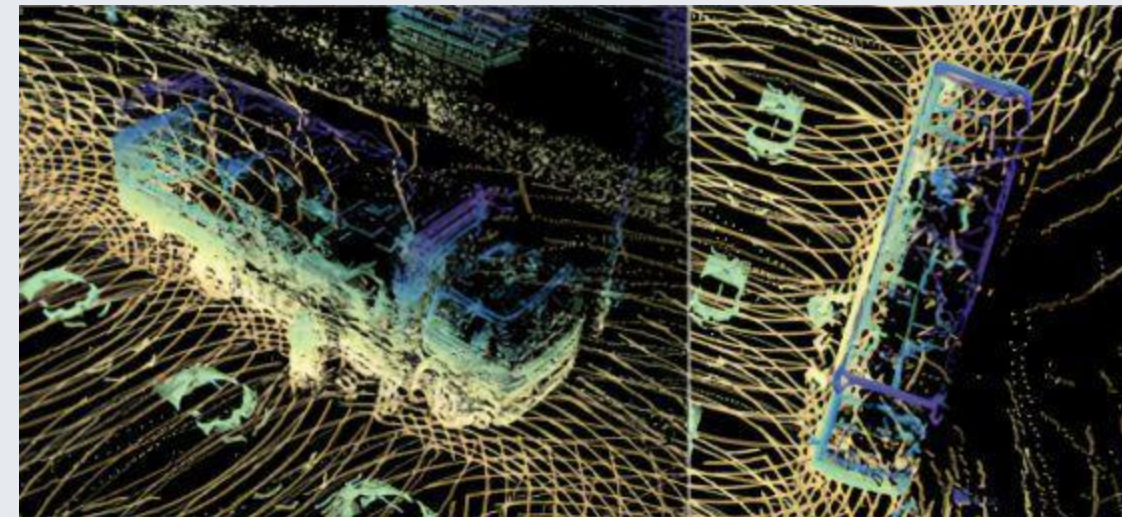
Automatic projections  
Integrated interfaces  
ML-powered labeling tools  
Pre-labeling  
Object tracking  
Batch mode  
Merged point cloud mode  
Sequence/frame/object attributes





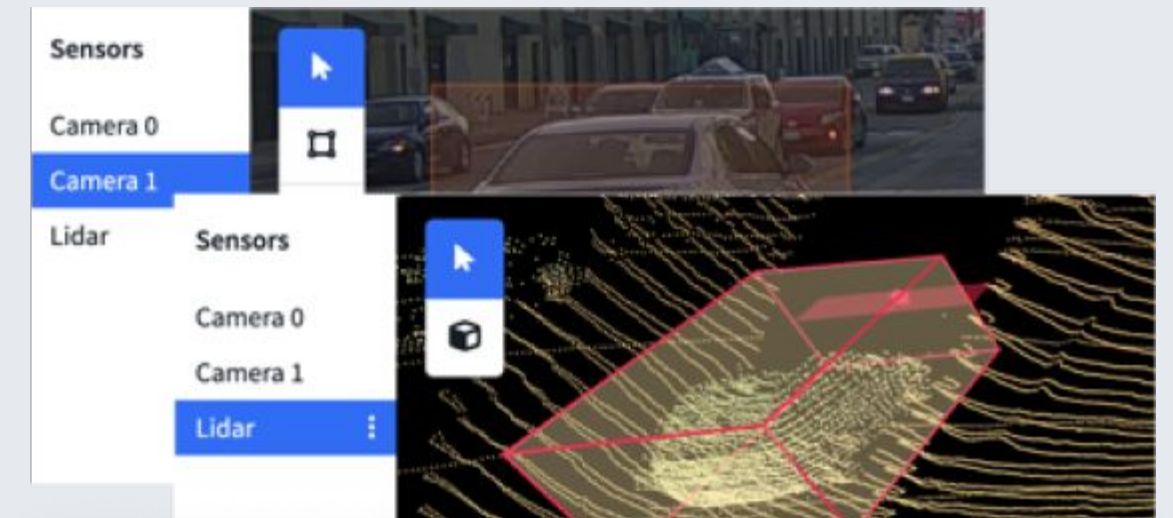


We offer unseen features to speed up labeling and maximize accuracy



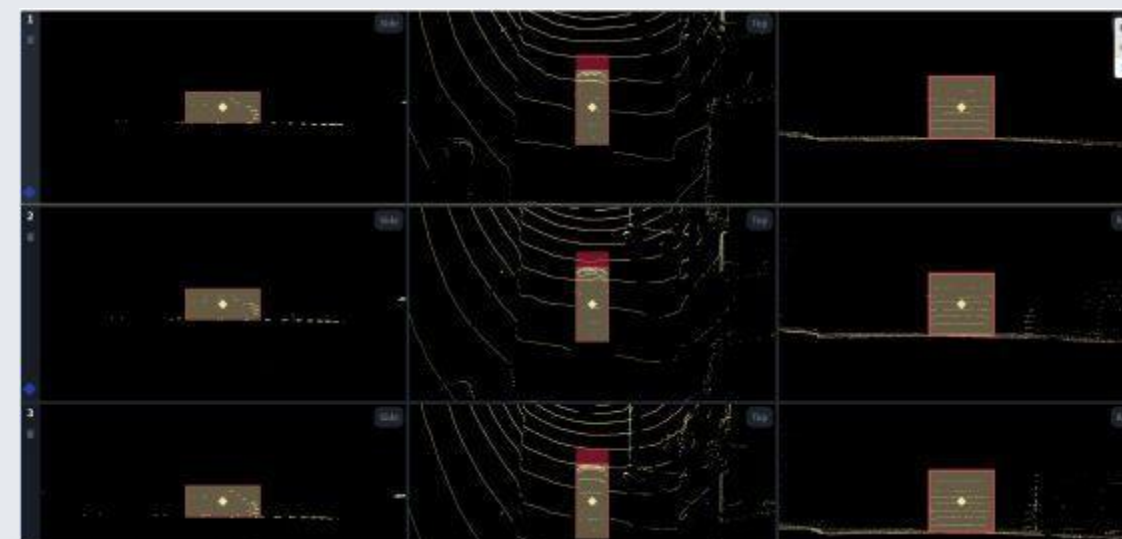
### Merged point cloud mode

Label static objects quicker and more precise with increased resolution



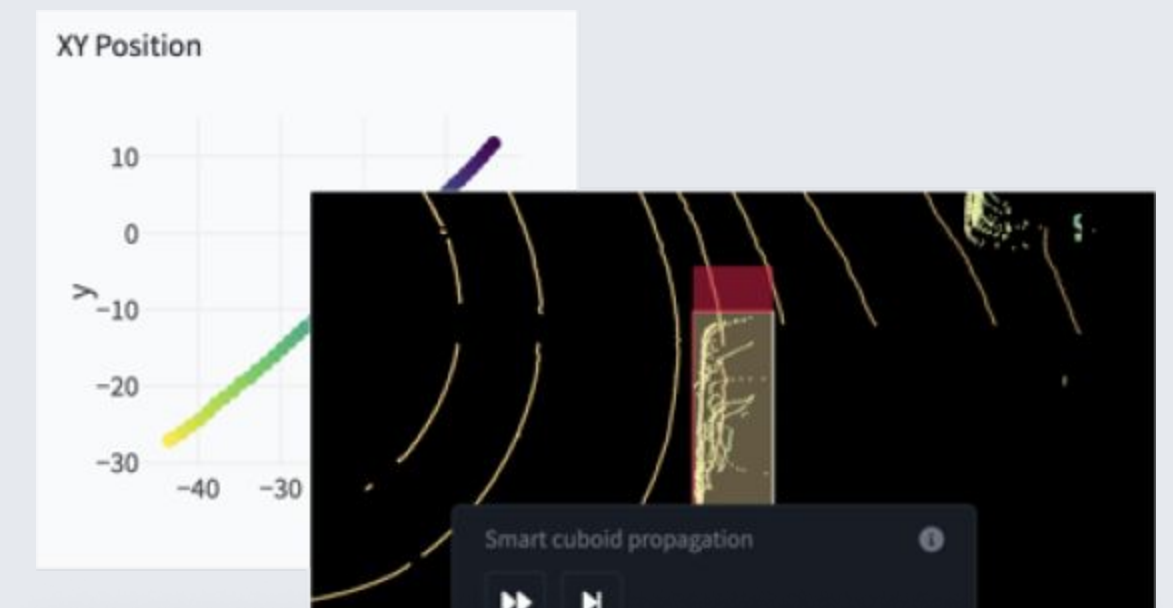
### Integrated 2D-3D interfaces

Label the same object in multiple modalities with multiple annotation types leveraging automated projections, all without leaving the interface



### Batch mode

Label dynamic objects quicker and more consistent by seeing all the object appearances in a single view



### Smart cuboid propagation

Automatically track an object throughout a sequence and see related kinematics





We think along with  
our customers on how  
to improve their  
workflows

### Examples of what customers were requesting...

#### Example 1 (robotics customer)

Labeling static outdoor objects with bounding boxes in image sequences with 1,000 frames on 8 different camera streams from a robot

#### Example 2 (tier-1 customer)

Relabeling objects for segmentation purposes, after having labeled the objects some time ago with bounding boxes

#### Example 3 (tier-1 customer)

Label 3D lane lines and indicate with advanced attributes which lane line vertices are occluded on each camera image

### ... and what we finally set up

Although the customer did not need 3D labels, label the static object in 3D with a cuboid just once and then project in the Segments.ai integrated 2D-3D interface onto each of the frames, avoiding 8,000 manual annotations

Run an off-the-shelf large-scale segmentation model on the cropped bounding box masks, restitching to full-image labels and then correcting the prelabels with humans in the loop

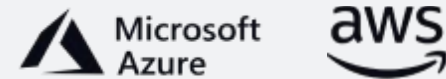
Label 3D lane lines, then use ML-powered segmentation labeling tooling to label any occluding objects on 2D, and then merge both together, avoiding manual attribute labeling and yielding 2D object masks as a free bonus



We can help you  
get set with our  
integrations &  
partners

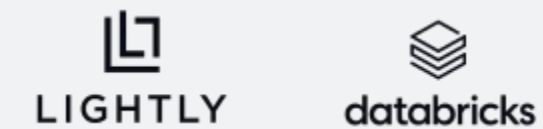
### Cloud storage providers

While Segments.ai is a cloud platform, you can keep your data in your own cloud buckets



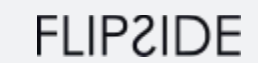
### ML frameworks and partners

Through our intuitive and powerful SDK & API, we can integrate with any other vendor in the ML stack



### External workforce providers

While we offer experienced workforce as well, we can partner up with your preferred external workforce provider







## A bit more about us

Segments.ai was founded by Otto Debals (CEO) and Bert De Brabandere (CTO) after finishing their PhDs and gaining experience in the (automotive) industry

Segments.ai is ISO27001 certified, GDPR compliant and EU based

Segments.ai is the first Belgian Y Combinator-backed startup ever, and now supported by other VC funds including Merus Capital and Volta Ventures

McKinsey  
& Company

 DeepMind

 TOYOTA



 VOLTA  
VENTURES

MerusCapital







## Thank you

Want to discuss your project, talk through your multi-sensor labeling specifications, get a free trial of the platform or a free pilot for your labeling projects?

Feel free to reach out, I'm happy to open up my agenda

Otto  
CEO & Founder  
otto@segments.ai Book a meeting [here](#)





