

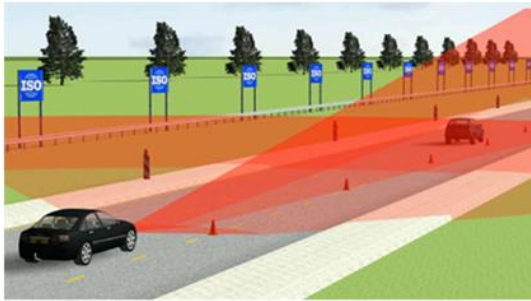


AVESREALITY

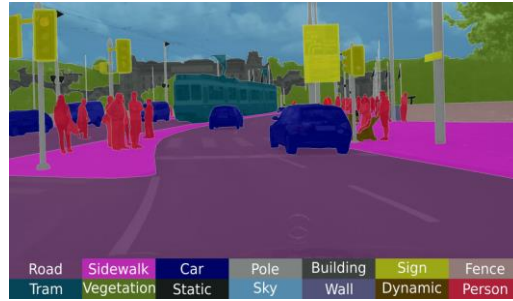
We automate virtual world creation.

To unlock the 3D bottleneck in autonomous mobility.

Simulation is key for sensor based systems, but use cases require suitable 3D worlds



Perception & sensor simulation



Synthetic AI training data



Rare edge cases



Virtual vehicle validation



Virtual world needs to look and behave like real world

- Realism & locations
- Physics & materials
- Immersion & optics

We bring real world data into game engine simulation



Road map data to 3D

- Lanes
- Markings
- Signs and barriers



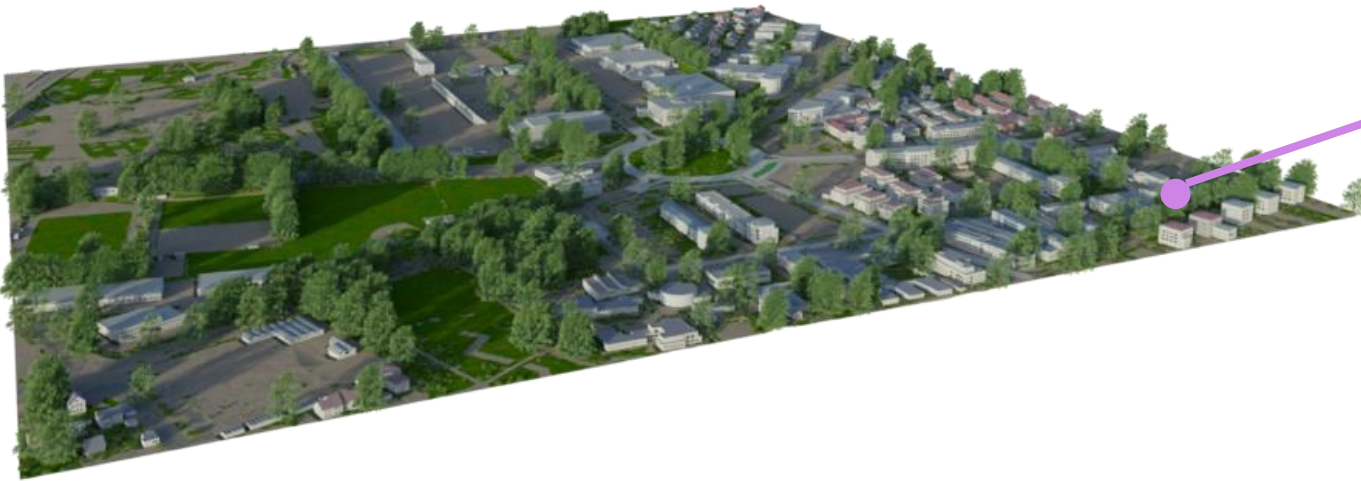
Geospatial data to 3D

- Buildings
- Vegetation
- Terrain



+ leading automotive simulation platforms (we are engine-agnostic)

Delivering any place on earth to automotive R&D teams for AI training and sensor simulation



What we deliver – ready to be populated*



**What it looks like
on street level**

*We deliver the „bare world only“, all dynamic objects such as other vehicles, pedestrians etc. have to be added by customers with complementary suppliers.

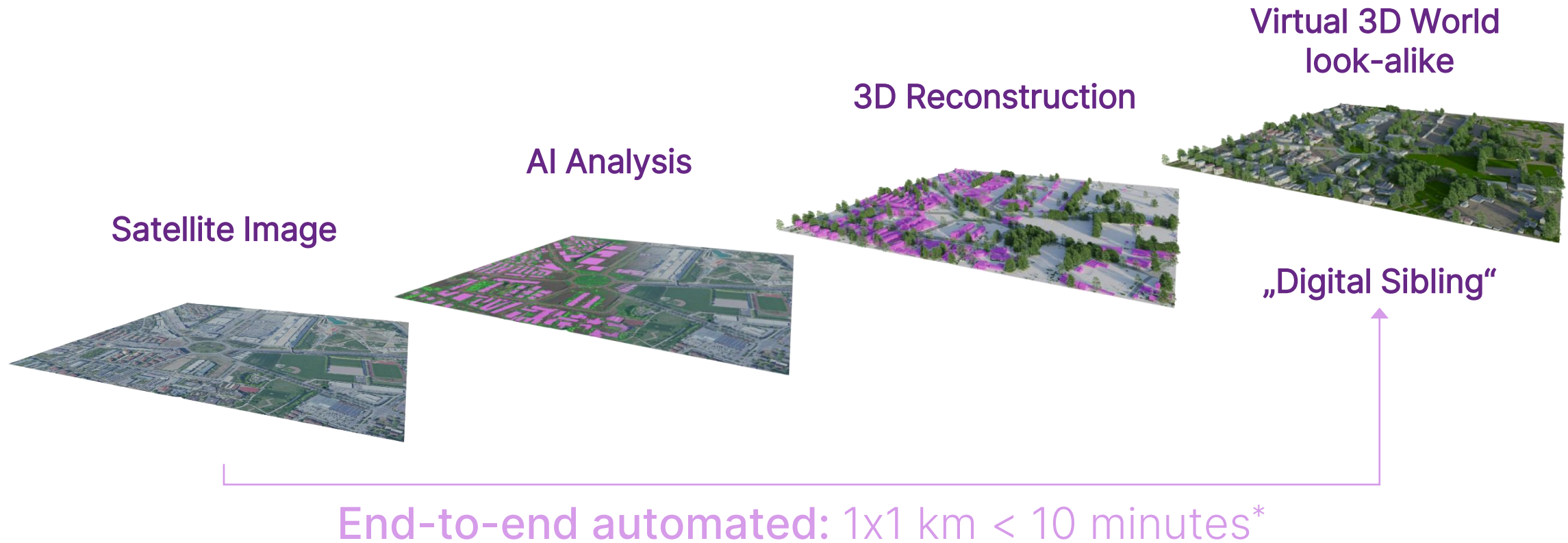
We achieve this...

...by **understanding** the world
from space...

...instead of visiting and mapping
every place down on earth.

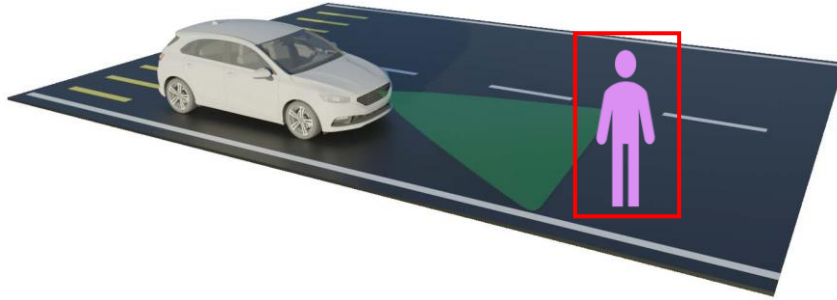


Our AI rapidly turns real life data into look-alike virtual 3D worlds - any place on earth, based on satellite images

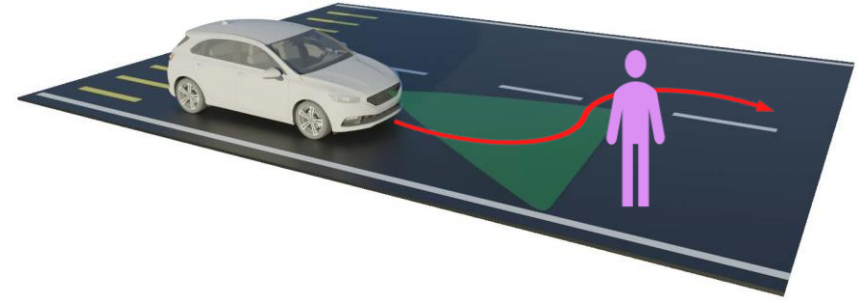


*using a 4,500€ computer set-up

We are a key enabler for the essential tasks in autonomous driving R&D



Training the car what it sees



Testing the car how it reacts

Virtual world for synthetic
training data generation



Virtual world for
simulation & testing

That's us!

Time, scale, quality, flexibility and cost benefits for automotive R&D teams

Simulation set-up



10 minutes
instead of
3 months*

Simulation scale



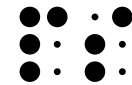
Globally
instead of
few km² only

AI data quality



Ground truth
instead of
manual labeling

Scenery adaption



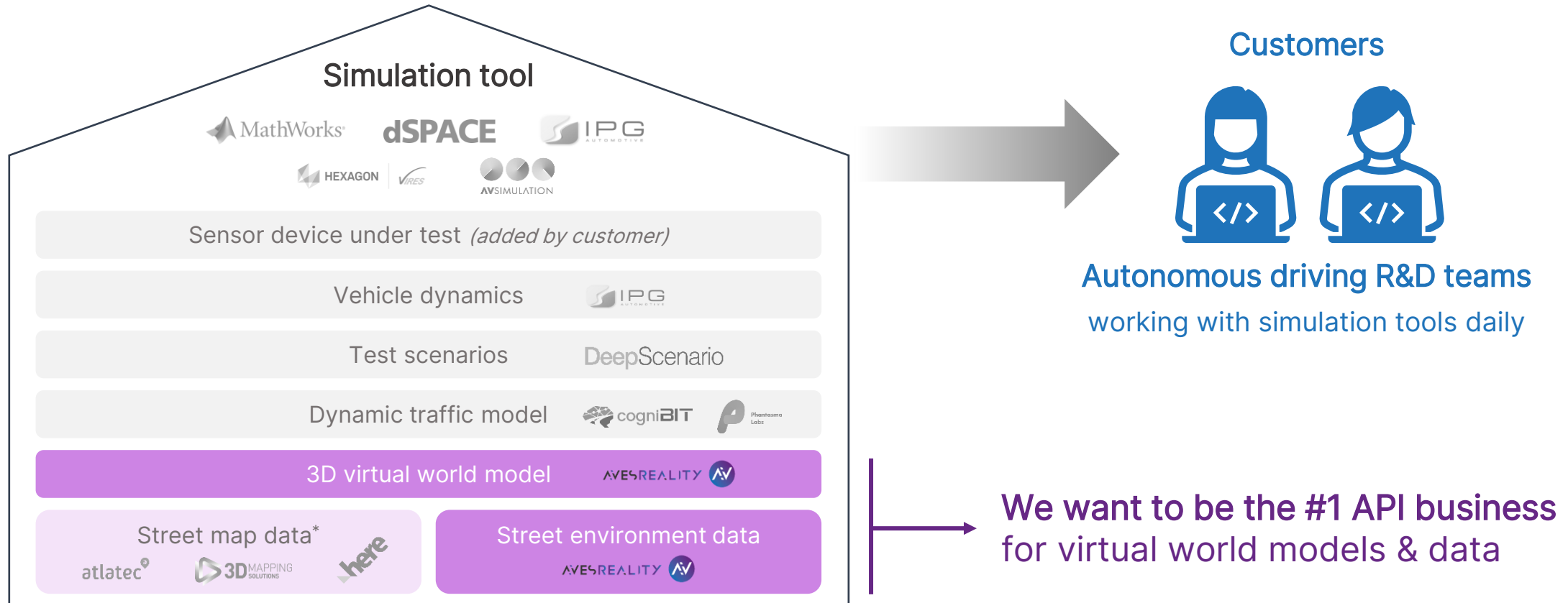
Infinite variations
instead of
rigid models



cost reduction, as simulation and virtual vehicle development is a magnitude cheaper than physical testing

*internal calculation based on test user interviews

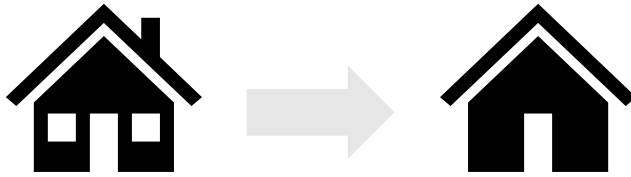
Our worlds and AI outputs are the **base layer** of **every automotive simulation tool chain**



*future area of expenditure, as our technology evolves and AI detection is improved

We address the needs of automotive **advanced development**

Advanced development



Real world

Simulation

Geotypic – „Digital Sibling“

Simulation & Development

- Collection of large data amounts
- Plausible & sensor-realistic data

Our focus

Series development



Real world

Simulation

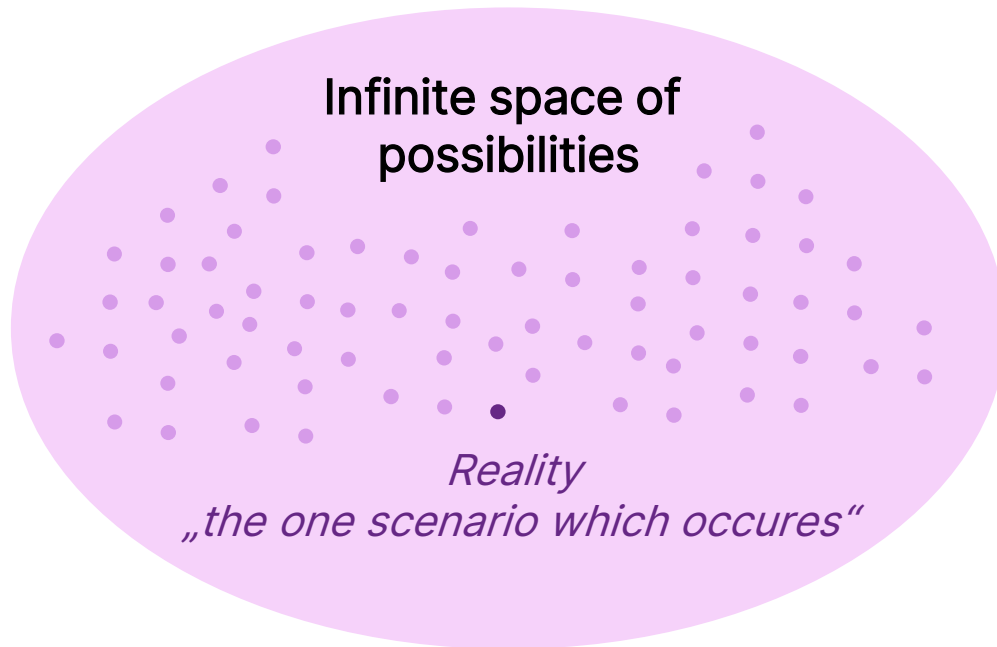
Geospecific – „Digital Twin“

Testing & Validation

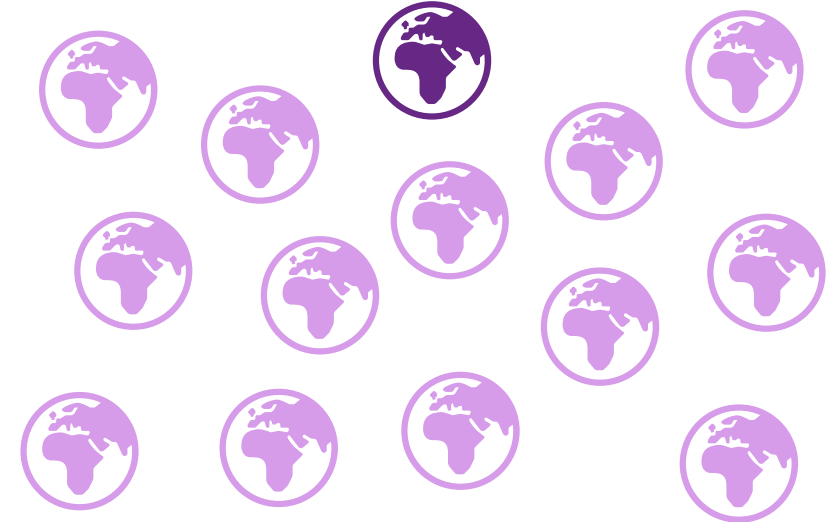
- Model validation 1:1 w/ real world
- Accurate & real-life replicating data

Variaty is more crucial than accuracy: We create digital siblings instead of a digital twin

What an autonomous car
needs to be prepared for:



Digital twin world: accurate, but one-off



Digital sibling worlds:
Plausible variations to cover many possibilities

Want to talk?

We are looking for partners and collaborative use cases!



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