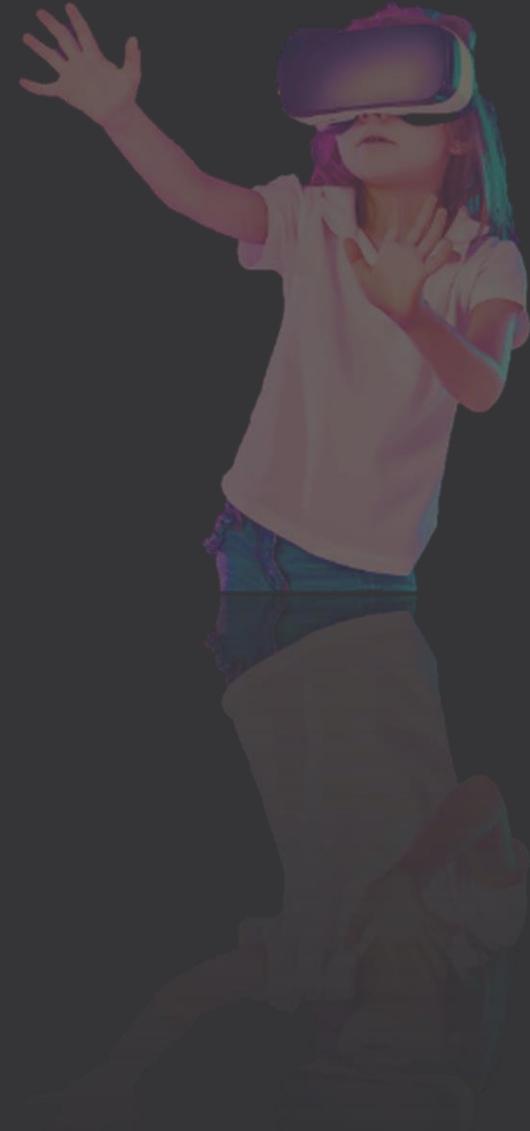# virtuosal.com

Company brief introduction

virtuosal: noun [S]

virtuoso of the virtual automated driving

Virtual Validation

Best move before going real

- It is always a tough decision to invest. Before you give a go, prove virtually that it is a good user experience at all. Invest smart, prove virtually.

Drive your car and test virtually

- Sometimes it is only a feeling that matters! See your defined feature on the virtual proving ground, how it feels to drive. User acceptance is sometimes what counts.

Early feedback

- It is a race to the market. You have a roadmap? Put our virtual proving ground tests to the schedule. Get early feedback and a solid definition. Avoid unnecessary iterations.

Tailored Solution

Tailored for your needs

- You need a proving ground to demonstrate and test your features? We can offer a tailored one fully virtual and exactly designed for your needs. We offer a shortcut all in one virtually, you will experience a new development process that provides early evaluation and feedback.

Originating from your requirements

- You have the idea, concept, and requirements? Let's take an agile step to see how it is in action. On the virtual proving ground, see how it feels the drive with this feature. If you are satisfied, feel to invest with less risk.

Integrated Environment

All in one virtual validation

- It is all an integrated design process starting from requirements to test but virtually. Let us define, implement and test virtually. All in one process, fast and effective.

Our Technology

- Our virtual proving grounds are designed and realized in **Unity**. After the first input you provide about your needs, we start to design the proving ground specially defined by the test process. The required test scenarios are detailed and documented in conjuction with the proving ground design.

All is an integrated framework. We provide an interface using **FMU 2.0** to integrate vehicle drive train, brake and steering behaviour. The sensor data processing can be implemented by C/C++ or Python according to your needs. We provide the data transfer method to your executables.

Virtuosal Team

Sensor Simulation

One expert in Sensor modeling and simulation
20+ years
Radar, Lidar, Ultrasonic

Vehicle Dynamics

One expert in Vehicle Dynamics modeling and simulation
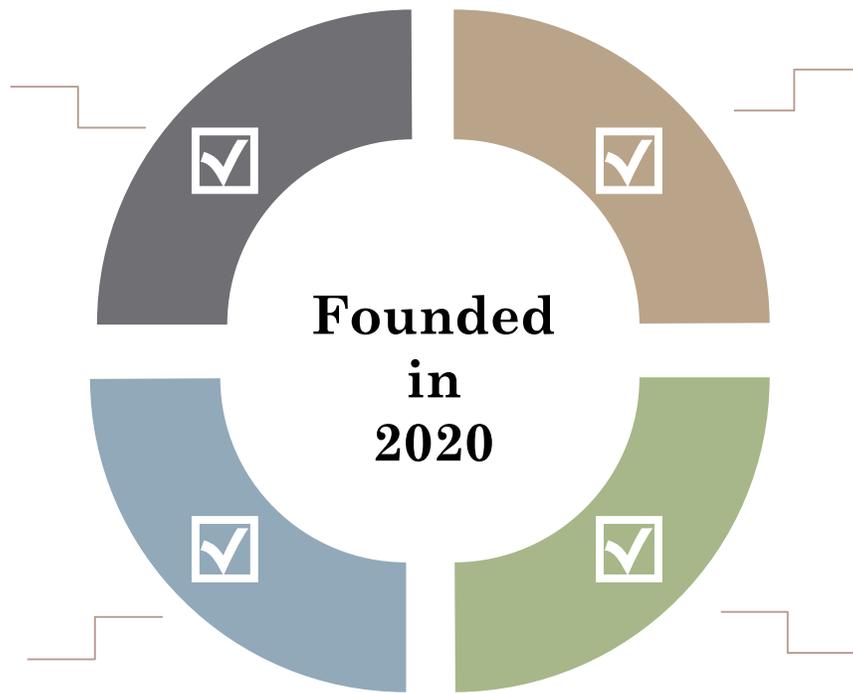4+ years
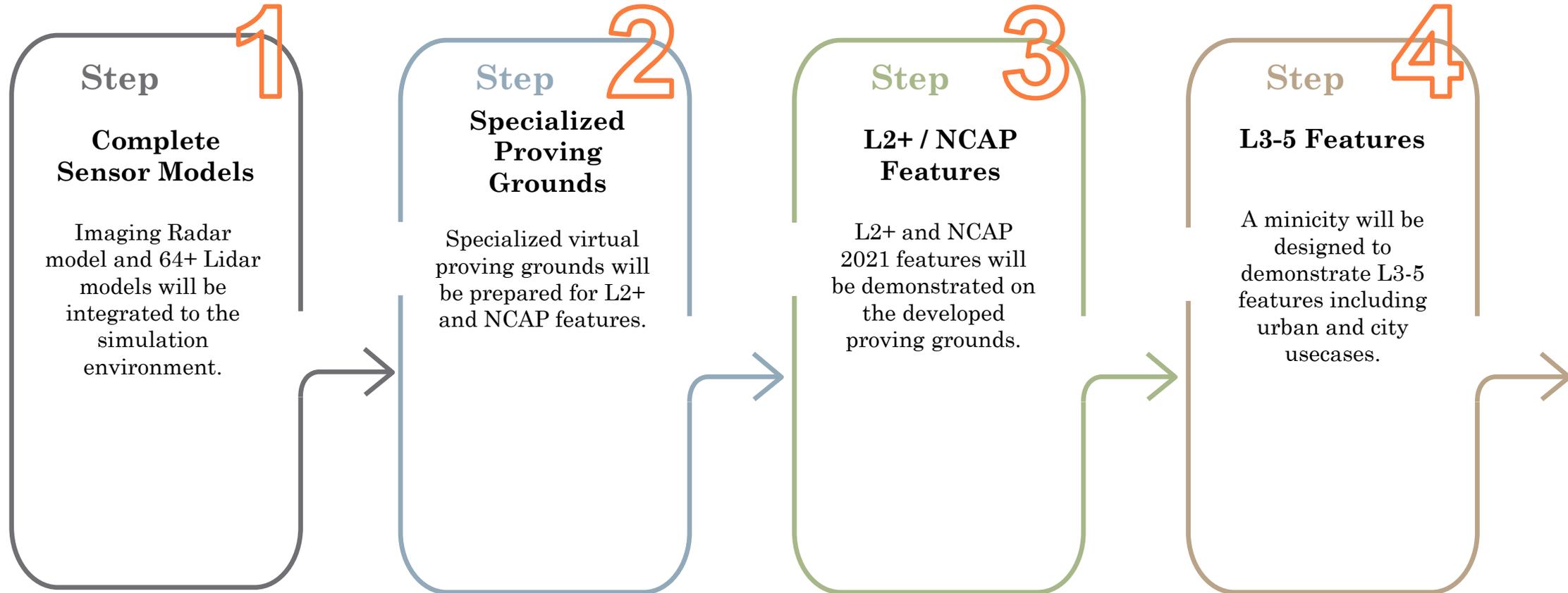Power train, Steering, Brake

Founded in 2020

Image Processing

One expert in Image and Video Processing
20+ years
Computer Vision, AI

Automated Driving

One expert in Automated Driving
4+ years
Sensor Fusion, Decision Making

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Technology Roadmap

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Step 1

Complete Sensor Models

Imaging Radar model and 64+ Lidar models will be integrated to the simulation environment.

Step 2

Specialized Proving Grounds

Specialized virtual proving grounds will be prepared for L2+ and NCAP features.

Step 3

L2+ / NCAP Features

L2+ and NCAP 2021 features will be demonstrated on the developed proving grounds.

Step 4

L3-5 Features

A minicity will be designed to demonstrate L3-5 features including urban and city usecases.

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Thank you…

Contact us via info@virtuosal.com

and www.virtuosal.com