

The background features a dark teal gradient with faint, glowing blue line-art illustrations of a satellite in the upper right and an airplane in the upper left. The main title 'obsurver' is centered in a large, white, sans-serif font, with the 'o' being a light blue color.

# obsurver

A faint, glowing blue line-art illustration of a car is positioned in the lower-left quadrant of the slide.

Enabling True Safety for Sensor-  
Driven Autonomous Systems

**We are building a world where  
sensors **never fail**, and  
autonomous systems can be  
**trusted as much as life itself.****

# Team



**Fabian Schmidt**

CEO

M.Sc. Entrepreneurship, Babson College, with 7+ years as a serial entrepreneur— built var. successful ventures in consulting, supply chain, pet food, FMCG and mobility —then founded observer to help autonomous systems monitor sensor degradation.



**Benjamin May**

CTO

M.Sc. Physics, University of Greifswald, with 20+ years leading ADAS/AD system development and strategy for global OEMs; co-founder and advisor of the IEEE P2020 Automotive Image Quality Standardization WG before co-founding observer.



**Sven Fleck**

CSO (Chief Science Officer)

M.S. & Ph.D. Computer Science, University of Tübingen, with 20+ years consulting on automotive and surveillance imaging (lens & calibration quality); co-chair of IEEE P2020 and co-founder of observer to tackle in-field sensor degradation.

# *When Sensors Fail:* **Real-World Consequences in Critical Sectors**



## **Automotive**

Degraded sensors cause phantom braking, missed obstacles, or failed airbags — increasing crash risk.



## **Space/Aviation**

Degraded sensors undermine navigation and safety, where in-flight or in-orbit failures often leave no room for correction.



## **Industrial Automation & Robotics**

Degraded sensors mean distorted perception, leading to navigation errors, unsafe interactions, and unexpected downtime.



## **Defense**

Degradation weakens both offensive and defensive capabilities: from impaired targeting to reduced situational awareness and mission effectiveness.



## **Heavy Machinery**

Unreliable sensors cause navigation errors, delays, or collisions in rough terrain.



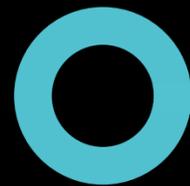
## **Other**

- Oil, Gas & Petrochemical
- Rail Operators & Infrastructure
- Maritime & Port Authorities

**Currently sensor degradation is not recognizable, only full failure is flagged.**

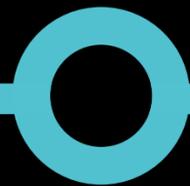
# History

2016



- Benjamin & Sven co-found IEEE P2020
- Patent process startet
- work in OEM specifications for 10+ years

2019



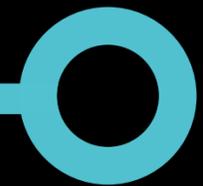
- var. research projects
- founding of “survschool UG”
- patent process done, more patents in the works

2020



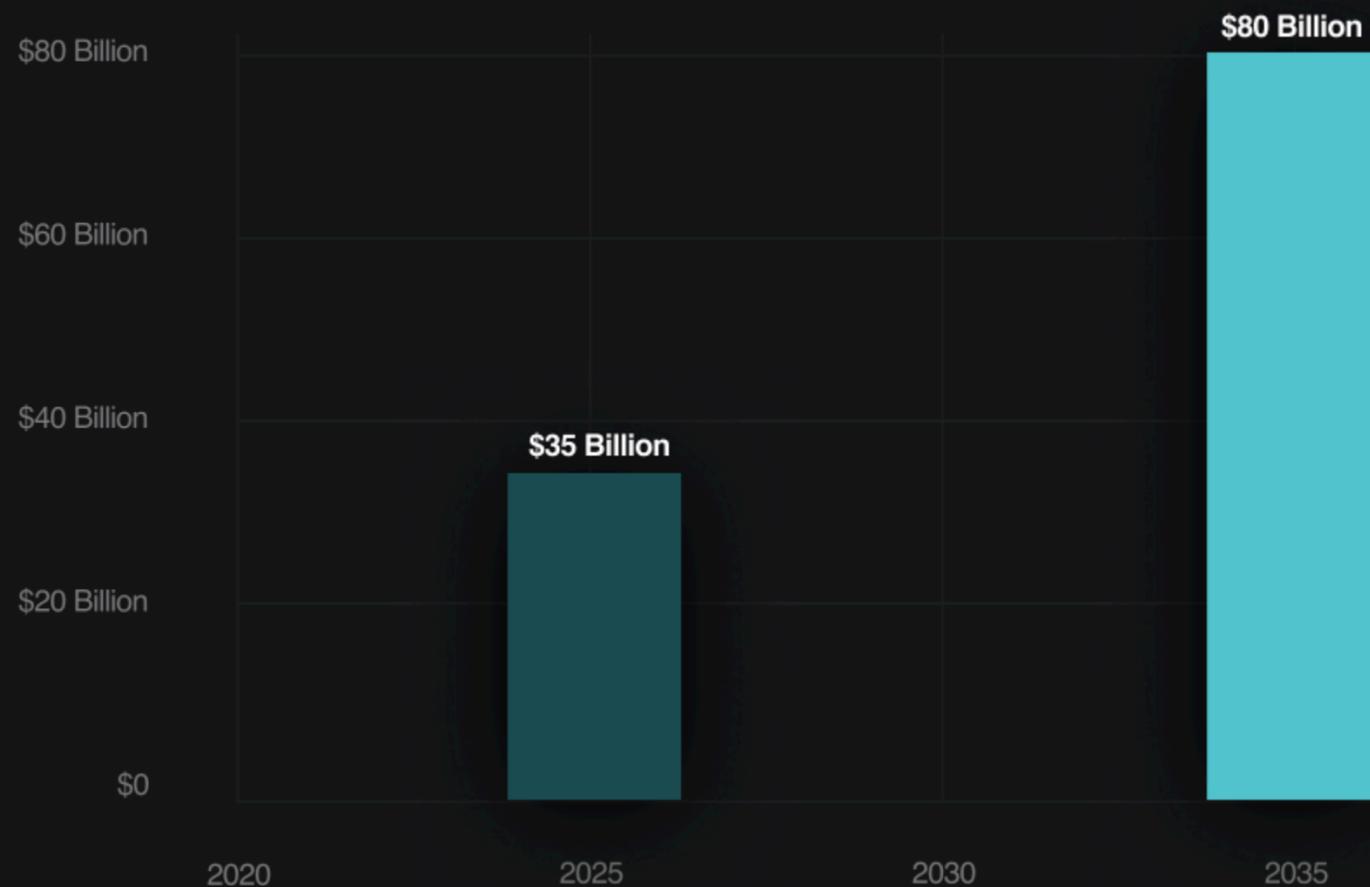
- var. research projects with e.g. Belron (Carglass) or dSpace
- mini-PoC to show degradation can be identified
- Oct. 2025: cofounding of “observer GmbH”

2025



# Market & Regulatory Context

Total addressable market for >=L3 systems requiring maintenance



*Regulatory Drivers:*

- **ISO26262** rev 3 (coming) for predictive maintenance (e.g. germany [read more](#))
- **UNECE R155** cybersecurity & safety mandates

**Regulators and OEMs must certify sensor health over the vehicle lifecycle.**

# We Build Safety-as-a-Service

01

## Watchdog

**Onboard module for real-time sensor monitoring**

Real-time monitoring in the vehicle — detects miscalibration, soiling, or signal loss as it happens.

02

## Engine

**Workshop tool for predictive maintenance**

Batch analysis of sensor logs — enables predictive maintenance and reduces manual checks.

03

## Fleet Cloud

**Fleet-wide dashboard for sensor health**

Centralized view of all assets — KPIs, alerts, root-cause analysis, and fleet-wide health trends.

**Works with camera, radar, LiDAR**

**Easy to integrate (ROS, REST, Docker)**

**Scales from one vehicle to entire fleets**

# We Set the Market Entry Barrier!

## Sensor Degradation Detection (Main IP)

Registered in July 2016



Detects early signs of sensor performance decline before complete failure occurs, ensuring consistent data reliability.

## Human degradation Detection

Registered in February 2020



Monitors driver or operator attention, fatigue, and performance to enhance safety in human-machine interaction.

## Scenario Driven Individual Feedback to AD/driver

Registered in May 2019



Provides real-time, context-specific feedback to autonomous driving systems or drivers to correct behavior and prevent risks.

# Business Model & Revenue

## Non-Embedded Solution

- Standalone diagnostic tools and software for maintenance, inspections, and sensor health management.
- Revenue generated through software subscription fees, maintenance contracts, and diagnostic service fees.

## Customized Enterprise Solution

- Tailored, industry-specific solutions designed to meet unique customer needs.
- Revenue from bespoke integration projects, professional services, training, and strategic advisory.

## Embedded Solution

- Software integrated directly into client hardware (vehicles, drones, robots, industrial machinery).
- Revenue through recurring licensing fees and long-term integration contracts with OEMs, system integrators, and manufacturers



## Revenue Streams

Licensing & integration fees

Subscription & usage-based diagnostics

Enterprise solution engagements

# GTM-Strategy



## Focus-Industries:

**Heavy Machinery:** AgTech (Claas, John Deere, Fendt)

**Defense:** AKKODIS, KNDS, Rheinmetall

**Robotics:** ARX Robotics, Neura, AgileRobots

**Software:** T-Systems, Deloitte

via Intro's from network



## 2nd-Industries:

**Automotive:** US or german OEMs

**Automotive suppliers:** Bosch, Aumovio, etc.

**Space/Aviation:** Airbus, ESA, SpaceX



## 3rd-Industries:

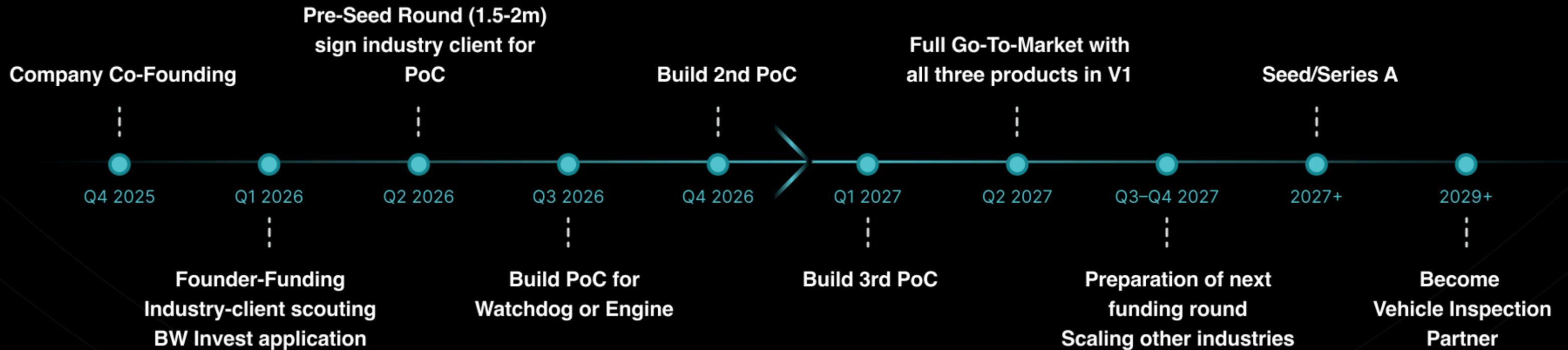
**Rail & Public Transit**

**Maritime & Ports**

**Vehicle Inspection Partners**

**obsurver's tech is not limited by the industry, but scaleable across them.**

# Roadmap & Vision



**Making autonomy truly safe by ensuring no sensor degradation goes unnoticed - across all industries. observer sets the global standard for real-time sensor health.**

# Join us in a **mission** to make the future of autonomous systems and therefore our **world truly safe.**

If you have any additional questions or interested  
in our product, contact us at

[Contact Us](#)



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