

# Supplying the future

Next-gen autonomous tech for automating the Last Mile mobility

Stage: European Seed Round, Generating revenue

Sector: Deep Tech, Autonomous Systems, Al

AutonomyNow<sup>TM</sup>:
Starting with the costly,
crucial problems

### Escalating problems:

# Accelerating shortages of drivers

Rising costs of goods delivery

480k

Logistics issues:

drivers shortage in the EU as of 2023

2 millions

drivers will be lacking in 2026 if no action taken

55%

rise in European diesel prices since 2021 55%

of total supply chain cost occurs in the last mile

Sources: Europe's trucker shortage becoming 'extremely dangerous', Financial Times; World Road Transport Organisation: Driver shortage in Europe to triple by 2026 if no action taken; Petrol and diesel are likely to get more expensive, Business insider; The pressure is on: the true costs of Last Mile delivery, ATOS Group.

### Automation landscape

# Opportunity for change

2022

Automation opportunities:

start of commercial Robotaxi fleets in the US 10 millions

miles driven daily by virtual drivers in simulation

51%

Last Mile cost decrease due to automation

95%

of total miles will be driven by L2+ automated vehicles in 2035

Sources: Cruise is now inviting the public to try its self-driving cars in one U.S. city, Fortune; Waymo's cars drive 10 million miles a day in a perilous virtual world, MIT Technology Review, Digitalization and automation will halve the cost of logistics, PwC Strategy

### Our strategic bet:

Automating the Last Mile will provide a €400m to €1bn+ market value in the next 5-8 years

Market growth indicators:

50%

retail e-commerce sales growth forecast by 2025 4bn

parcels ordered online are delivered in the EU each year

€84bn

Global Autonomous Last Mile delivery market size in 2027

24.1%

CAGR rate of the Autonomous Last Mile delivery market (Allied Research, 2022)

27%

rise in the cost of hiring a driver in the EU by 2030 4 million

miles driven by AVs in 2022 in California alone €15bn

Global Autonomous Vehicles market size in 2030

31.9%

CAGR rate of the Global Autonomous Vehicles market (Bloomberg, 2023)

# AutonomyNow<sup>TM</sup>: Key Enabling Technology

## Key Enabling Technology:

# Automation of Last Mile routes



Technology advantage:

51%

decrease in Last Mile delivery cost

Scalability

ability to scale operations regardless of drivers' availability

Efficiency

top cost- and energy efficiency due to optimised route planning Safety

uncompromised reliability in all weather and road conditions

Key Enabling Technology



The Technology enables safe and scalable

program is trained on Customers' Point-to-

Point routes after a 6-months training period.

Automation after the basic Autonomous Driver

Key Enabling Technology

# We are building an Autonomous Driver working in all road conditions

#### Next-gen Neural Networks

Ultrashort reaction times and high precision validated in Automotive

#### Advanced Imaging Solutions

Robust imaging technology providing alternative object detection based on 4D radars

#### Scalable Data Engine

Asynchronous supervised and unsupervised Machine Learning based on simulation & operational data

#### Automotive safety

Custom electronic control solutions enabling functional safety and dependability in all conditions

# AutononyNowTM

Key Enabling Technology

# Advanced Imaging

Up to 300%

Average Precision gain

Next-gen Neural Networks

We utilise the technology of Transformers-based Neural Networks (2021) improving the system's detection precision by a factor of 3 in comparison to previous generation systems

150 ms

Reaction times

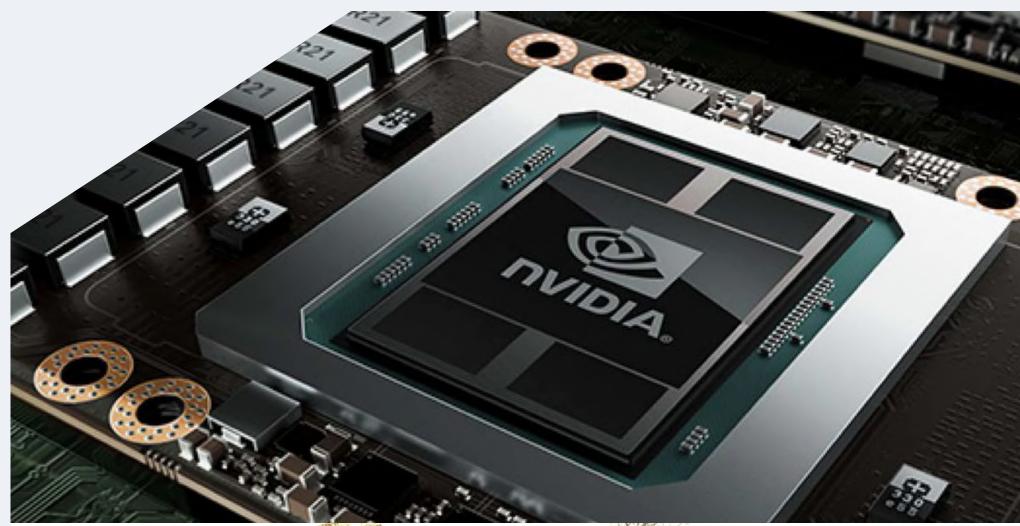
Advanced 4D Imaging

We deliver the highest level of safety thanks to utilising an alternative way of object detection with the use of Imaging Radars providing precise and scalable solution with Automotive-grade safety.

**AutonomyNow<sup>TM</sup>**The Automating Company

AutonomyNow™ Confidental

Key Enabling Technology





# Data Engine



Official Technology partner

#### Learning in Simulation

Next generation NVIDIA GPUs harnessing decades of innovation in Gaming and IT as well as Simulation engines provide advanced, ready to ship development platforms





Deployed with Automotive OEMs

#### Applied in Automotive

Our Autonomous Systems deployed with Automotive Manufacturers provide a Proofof-Technology validation in the operational environment and access to real sensor data in ubran conditions

Key Enabling Technology

#### **Autonomous Control Unit**

Automotive-grade safety is at the core of our Hardware stack enabling safe & reliable transportation on public roads in virtually any weather conditions.

The unit integrates data from all sensors and allows for ultrashort reaction times in a repeatable, fail-safe manner. Our Team utilises responsible safety-first approach with Functional Safety methodology applied.



### Autonomous Control

#### Safety in all conditions

The most important maneuver any car must handle is: braking. Our proprietary hardware and software control mechanisms validated in one of the most demanding Automotive conditions provide the highest level of safety on the road.



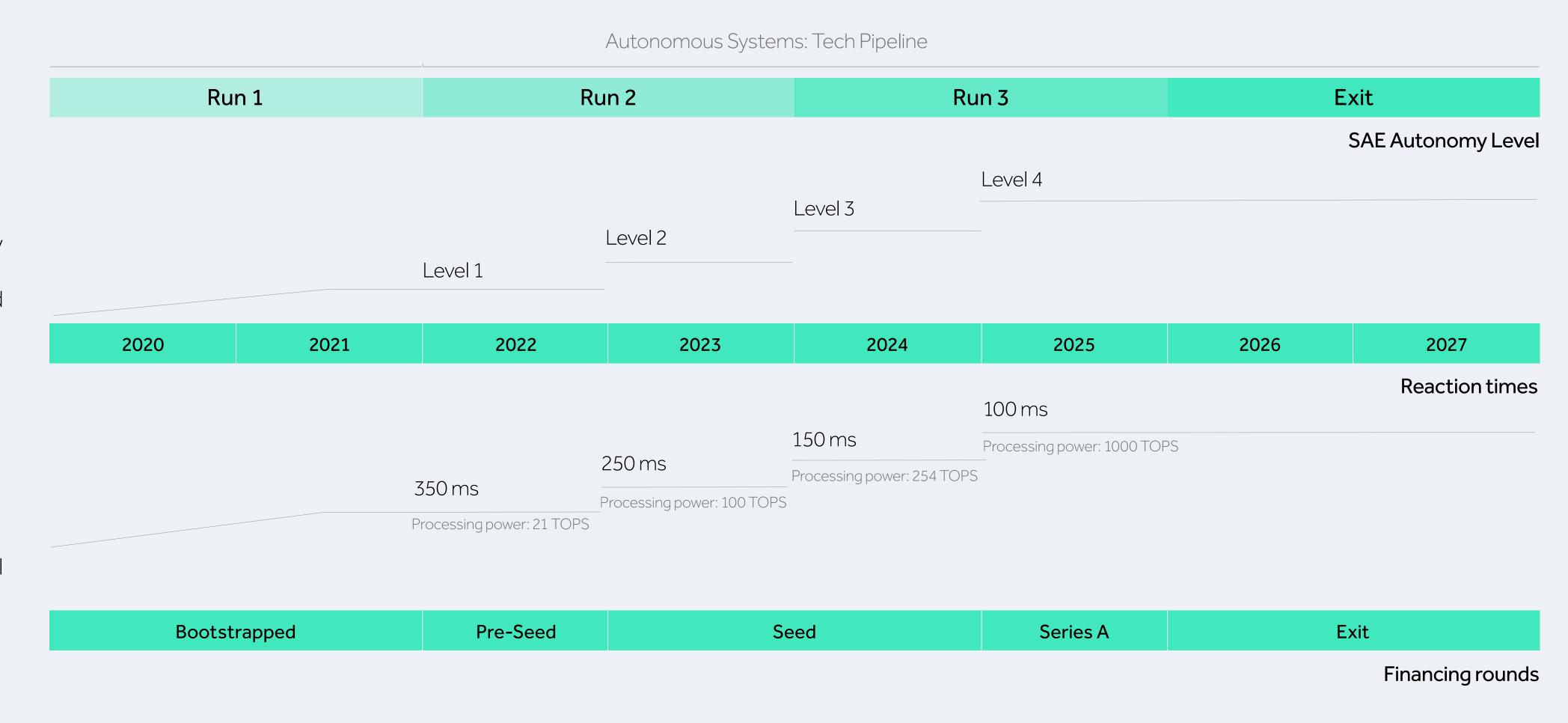
#### Key Enabling Technology: Pipeline

#### Ramping up

With a first-generation
Autonomous System
achieving comprehensive
safety on the road in
operational conditions,
we are planning to move
to an advanced autonomy
of SAE Levels 2-4 in
cooperation with selected
industrial partners

#### Iterative scaling

Safety is the integral part of our Autonomous Systems. Completed and certified for series production in 2023, we will continue working on the next-level Autonomous Driver in virtual environment to be openly released in mid-2024.



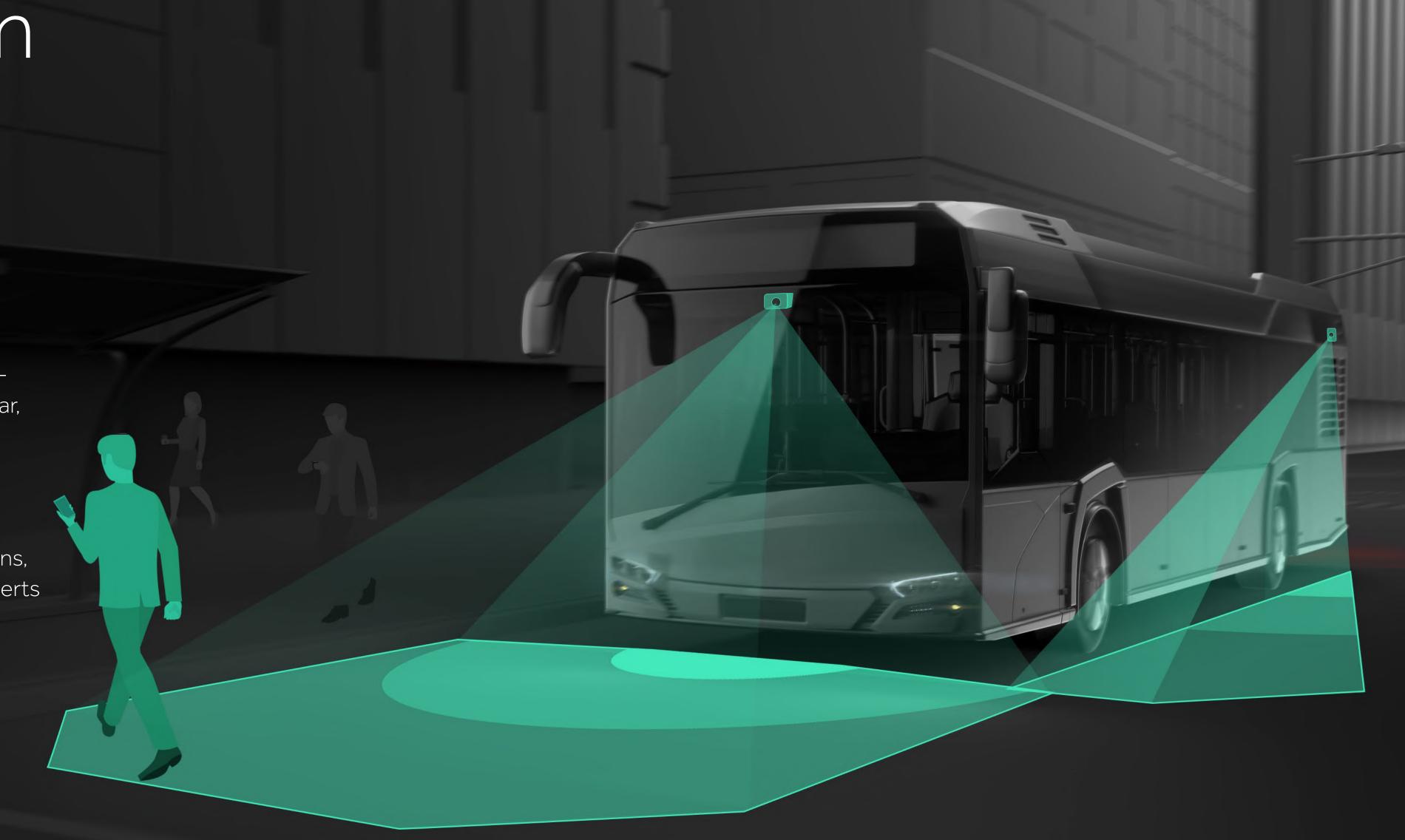
Level 0 - no automation | Level 1 - one function automated | Level 2 - two or more functions automated | Level 3 - conditional automation, eyes off but driver intervention required | Level 4 - no human required, functional autonomy in all conditions, advanced problem solving and autonomous charging | TOPS - trillion operations per second

# AutonomyNow<sup>TM</sup>: Traction

# MVP System

Level 1 Autonomous System by
AutonomyNow<sup>TM</sup> provides a significant
improvement in safety onboard by using
the next-generation Neural Networks, lowlatency cameras, Ultra-High Definition radar,
ultrasonic sensors and custom control
systems in one integrated solution.

The System monitors the surroundings of the vehicle in search of dangerous situations, providing the driver with visual and audio alerts and ultimately automating the response by safe autonomous braking, significantly reducing collision risk.







### Automotive OEM Traction

#### **MVP: ADAS Systems**

We have built and tested commercially viable ADAS Systems enabling higher level of safety onboard through object detection, autonomous emergency braking, driver monitoring and more.

#### Upcoming changes

Due to new legislation coming into force from 2024, each new City Bus will require a complete set of features enabled through GPU-based ADAS Systems.

We aim to start series production in Q4 2023 and capture 35% of the European Bus & Coach market from 2024 onward, producing upward of 3.000 units yearly.

Scalable Business model

#### Autonomous-Vehicle-as-a-Service

We are introducing AVaaS: an easy-tointegrate business model for efficient and truly sustainable urban goods delivery.

Autonomous Driver delivery units can access city roads under Autonomous testing regulations.and begin pilots in operational conditions.

51%

Customer Benefits decrease in Last Mile delivery cost Autonomous Vehicle Last Mile parcel delivery €0.25 per parcel €750 per month AutonomyNow™

## First Partnership: Last Mile deliveries



#### Autonomous & Electric advantage

With the new generations of shoppers expecting cheap and instantaneous eCommerce delivery, InPost will gain cost&technology leadership by efficient and reliable goods delivery at 50% lower costs of than its competition.

1st

Customer Potential:

eCommerce delivery provider according to Polish Customers

560m

parcels delivered yearly



First Customer: Leading European eCommerce delivery provider, InPost is listed on the Amsterdam Stock Exchange and growing quickly in European markets

AutonomyNow<sup>TM</sup>: Market size & Go-to-Market strategy

### Market Size

Target Markets and Trends overview

#### Autonomy advantage

Rising employment and energy costs will push the logistics and retail operators to find margin gains in automating the Last and Middle Mile to streamline the delivery, adapting to a booming eCommerce industry and high consumer expectations.

€84bn

Global Autonomous Last Mile Delivery

#### Access to the centre

European cities are planning to impose restrictions and high tariffs for entering the urban area for carbon-powered vehicles, effectively pushing logistic and retail companies to adopt electric vehicles and build their charging&delivery processes around them.

€307bn

Global Electric Commercial Vehicles



Advanced Driver Assistance Systems

#### New regulations

The European Automotive
Laws are changing in 2024
to enforce all City Buses &
Coaches to include ADAS
Systems enabling a number
of safety features realized by
Level 2 Autonomy.

#### Innovation at work

Advancements in sensor technologies and mass-produced advanced Graphic Processing Units already allow for up to 200 trillion operations per second, cutting Autonomous systems latency.



Market Size in 2027

### Market Size

#### Total Available Market size

#### ADAS System figures

We are focusing on entering the European Bus&Coach market with a Level 1 ADAS System in 2024. Our Total Available City Bus & Coach European production volume is estimated to 10.000 units.

#### The Automating market

By introducing an Autonomous
Driver with a business model based
on €750 monthly installments,
along with a small parcel delivery
fee at we arrive at €1.5 bn TAM
value with over 30.000 AVs
deployed on the roads.

€42 million

European ADAS Level 1 Systems TAM in 2024

Global Autonomous Level 4 Last Mile delivery TAM in 2030





### Go-to-Market strategy

#### Streamlining Tech & Business development

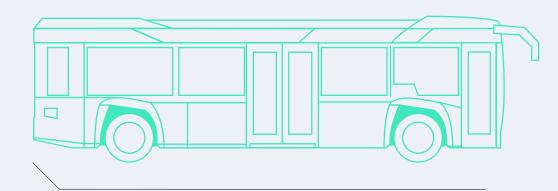
#### Autonomy in progress

Cost-cutting, safety concerns and regulation are introducing Autonomous Systems across multiple mobility sectors.

We aim to utilise our technology in the Automotive Bus&Coach OEM sector, providing a complete solution meeting the upcoming EU Regulation requirements in one integrated device.

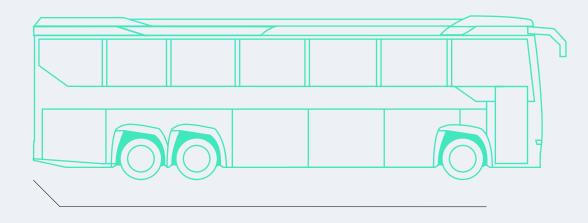
Based on OEM operational data as well as simulation testing, we aim to develop and deploy an advanced Level 4 Autonomous solution, starting with selected strategic partners.

#### Level 2 Autonomy



City Bus 2023
Market: OEM & Aftermarket

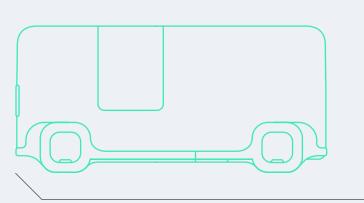
Autonomy Level: L1-2



Coach 2023

Market: OEM & Aftermarket Autonomy Level: L1-2

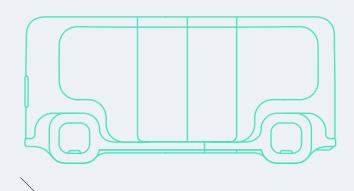
#### Level 4 Autonomy



Last Mile AV

2025

Market: Logistics, Courier Autonomy Level: L3-4



Last Mile Shuttles

2025

Market: Smart City Mobility Autonomy Level: L3-4



# AutonomyNow<sup>TM</sup>: Why Us & Our Vision



#### Michał Wendeker CEO | Chief Innovation Officer

CEO and Chief Innovation Officer at Autonomy Expert in High Tech Design and Innovation Management in the field of Autonomy and Automotive; created 5 tech product lines from idea to manufacturing; winner of MIT Enterprise Forum CEE, attended the Startup Acceleration at MIT, Boston; studying Architecture & Systems Engineering Program at MITxPro Core areas: High Tech Design, Strategic Management, Systems Engineering, Manufacturing Other: VC Fundraising, Supply Chain, Branding, Oper-Software Architecture, Financial Metrics, Sales ational Excellence, Functional Safety, Sales

#### Konrad Słoniewski Chief Technology Officer

Founder and Chief Technology Officer at Autonomy Experienced Team Leader in Machine Learning and Software Engineering domains. Delivered 20+ ML projects solving problems for various industries. Ex-Atos Senior Data Scientist (Expert), winner of Warsaw Booster and Impact Poland competitions. Core areas: Machine Learning, Computer Vision, Autonomous Vehicles, Cybersecurity Other: Motion Planning, Big Data, Talent Acquisition,

#### Konrad Kostrzewa Chief Research Officer

Founder and Chief Research Officer at Autonomy. Machine Learning, Data Science and Computer Vision Specialist. PhD Candidate at Warsaw School of Economics, author of scientific publications in the field of Al. Leading Tech Teams developing C-level solutions for MAERSK, Procter&Gamble and others. Core areas: Machine Learning, Computer Vision, Data Science, Advanced Research Other: Data Engine, Project Finance, Homologation Testing, Sales, IP Protection, Validation

### Why Us

#### Executive Team

We are an effective, focused Team building the nextgeneration solutions for an Autonomous & Electric future.

#### Why we'll win:

- 1. Strong Company Team delivering results on time
- 2. Know-how, skills and experience in Systems Engineering, Productionlead Design, Autonomy & Automotive
- 3. Exact and expert-validated Vision for the future with a clear action plan
- 4. Strong Company culture based on responsibility and growth
- 5. Clear business model with €1bn+ market value potential
- 6. Problem-oriented OKR management with solid sales and technology execution to date
- 7. Excellent design and User experience at the core of the project
- 8. Big future market with 30%+ CAGR rate across 3 tech sectors
- 9. Access to top Talent and experience building effective teams
- 10. Clear path to market & scalability

### Why Us

#### Growth culture & Industry experience



**Jan Księżopolski** Machine Learning Engineer

- Machine Learning Engineer with experience in Computer Vision and NLP deep learning research
- Built data analytics and data processing pipelines, Autonomous Simulation and Deep learning Specialist



**Dr Eng. Grzegorz Barański** AEB Systems Engineer

- 15 years of experience as a Senior Engineer, advancing technologies in the Automotive and Aerospace fields
- Expert in performance analysis, test integration, software development, requirement definition and production.



**Łukasz Styrylski** Head of ADAS

- Machine Learning Engineer with over 7 years of
experience in the field of Data Science and Tech industry
- Responsible for hardware&software System
development in ADAS & Autonomous Systems



**Prof. Eng. Mirosław Wendeker** Automotive Expert

- Engineer with over 30 years of experience in the field of Automotive and Aerospace industries
- Introduced to market an aerospace engine, automotive injection control systems, energy recuperation, photovoltaic and mild hybrid system



**Dr Eng. Tytus Tulwin**Autonomous Vehicle Engineer

- R&D Engineer with experience in Automotive systems, energy storage and hybrid-electric drivetrain design
- Adaptive Cruise Control Engineer, Autonomous Steering and Driver's interface UX specialist



Tomasz Sączek Logistics Expert

- Logistics industry international Expert with 20+ years of C-level, operational and interim management experience with industry-wide publications, PWC Logistics Expert
- Senior Management experience in IPP Group, FTF Columbus, Synthos, PWC, Orlen, Baltona, Carrefour, Żabka, Gorenje, Beko, Inpost among others.

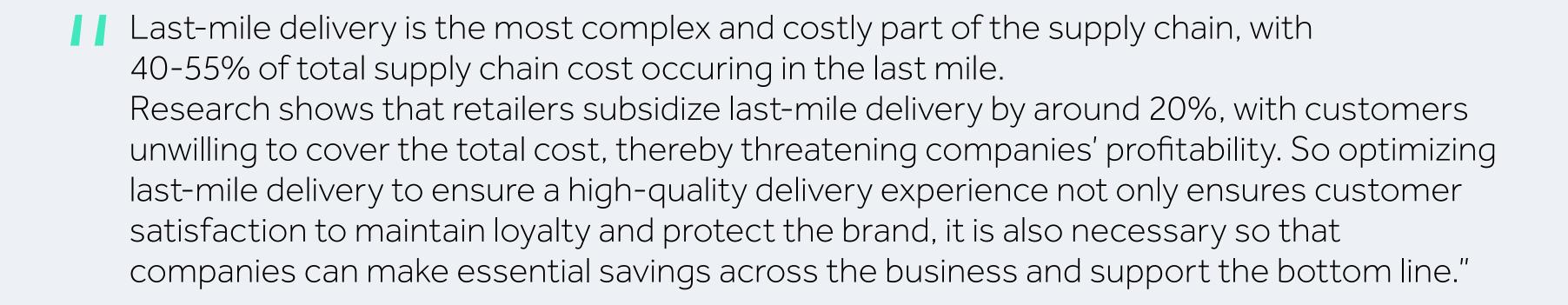


### Experts say

#### Industry Research



**Bas Stroeken**Global Head of Supply Chain
Solutions, Atos





Adam Sobolewski
Head of Operations in Opontia
Former Senior Supply Chain Manager,
Amazon

Road transport is a growing challenge in supply chains both for traditional retailers and those operating in the eCommerce channel. In particular, the organization of the last mile requires new solutions, not only due to purely financial reasons. Increasingly, to ensure the operational continuity of the business. Chronic shortage of drivers in the United States and Europe. Increasing levels of labor regulation.

All of this is leading market leaders to invest in autonomous vehicles. In 2021 alone, \$8.5 bn was invested in this segment. I have also analyzed the economics of autonomous transportation. I am sure we will see at least one deployment in a major retail chain in the next 5 years. Knowing the potential of people at AutonomyNow<sup>TM</sup> and seeing what they have achieved so far, I am of the opinion that they have every chance to be one of the first companies to implement Last-mile automation on a major scale."

### Contact

Let's get in touch



Michał Wendeker
CEO | Chief Innovation Officer
michal@autonomynow.co

**Investor Relations** 

investors@autonomynow.co

# AutonomyNow

Autonomy Now Sp. z o.o. Rektorska 4 / 2.29, 00-614 Warsaw, PL

autonomynow.co

