

An emerging global leader in AI for agriculture and rail machinery

Investor Presentation



Agriculture



Rail



May, 2021

Cognitive Pilot at a glance



- We are an AI developer focused on specialized vehicles markets with \$180B+ TAM
- Full cycle products collecting crowd data resulting in unrivaled accuracy metrics
- Successful investment and business traction with blue-chip clients

Data-driven AI based product for specialized machinery



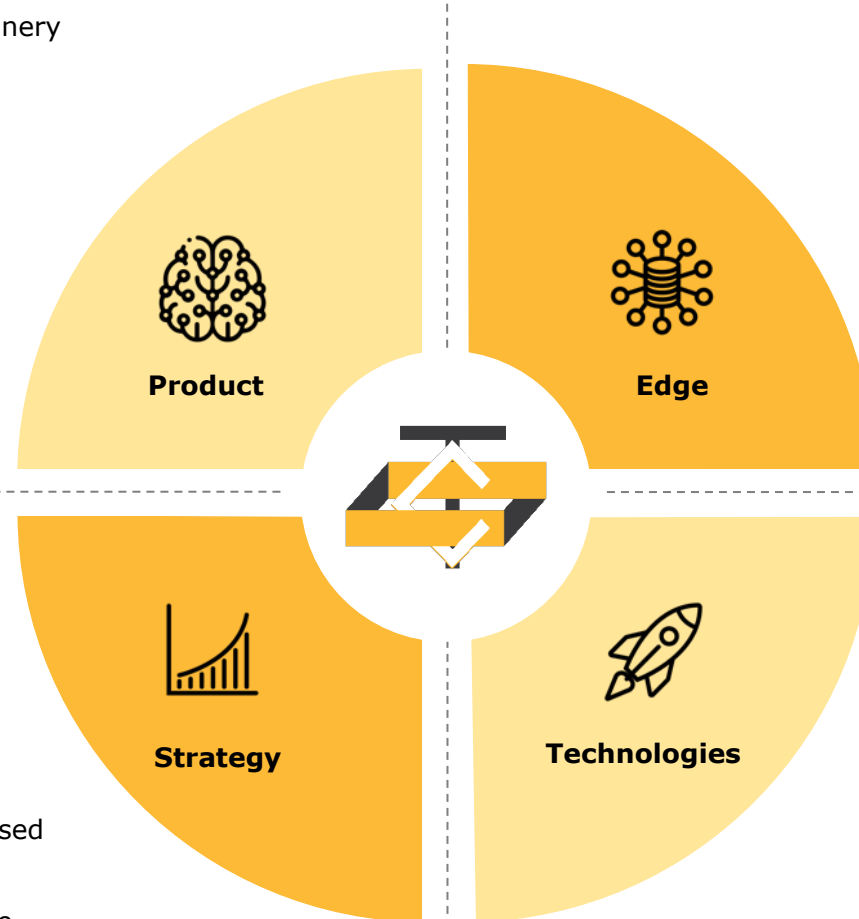
Providing computer vision based functions:

- ADAS
- Automation of selected highly valuable operations
- Platform for emerging subscription based functions

We operate in a **large and unpenetrated** market with \$180B+ TAM and high entry barriers.

In the core of our strategy:

- Interim focus on after-market vehicles and longer-term focus on OEMs partnerships
- Balance of fragmented and concentrated markets
- Longer-term focus on expansion of subscription based services
- Fast growth and scaling through Ag and Rail vehicle dealers



Unique multi-sensor data set is crowd collected by clients' vehicles in operation in all climate zones, limited-access areas, different types of natural and artificial environment...



...is **highly diverse** and almost impossible to catch-up

We use top trending technologies in computer vision, sensor fusion and hardware design:

- Camera+Radar low-level sensor fusion
- Edge computing
- Over-the-air crowd data collection
- Anthropomorphic DNN models on GPUs
- Full-cycle in-house radar development

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Modern world's challenges...

...addressed by our solutions



Environmental

Food shortage ← Improved crop yields through more efficient harvesting

Global warming ← Reduced carbon emission through more efficient use of machinery

Agricultural land depletion ← Distant land cultivation and eco-friendly farming



Equality

Demographic imbalances ← Easing access to modern technologies for different demographic groups

Technology imbalances ← Minorities empowerment with the help of automation

Mobility issues ← Improved industrial and personal mobility



Social

Transport fatalities ← Transport accidents prevention

Pandemic threats ← Decreasing reliance on human workforce through autonomous driving

Time waste ← AI enabled vehicles



Cognitive Agro Pilot



Description

- An autonomous driving system for Ag machinery that precisely sees the environment around and works without satellite signals and RTK corrections

Target clients

- Farm producers (50K+)
- Largest OEMs (3-5)

Highlights

- Works off-grid using AI based computer vision
- Obstacle detection and avoidance
- Fits any vehicle with CAN and any crop type



Cognitive Rail Pilot

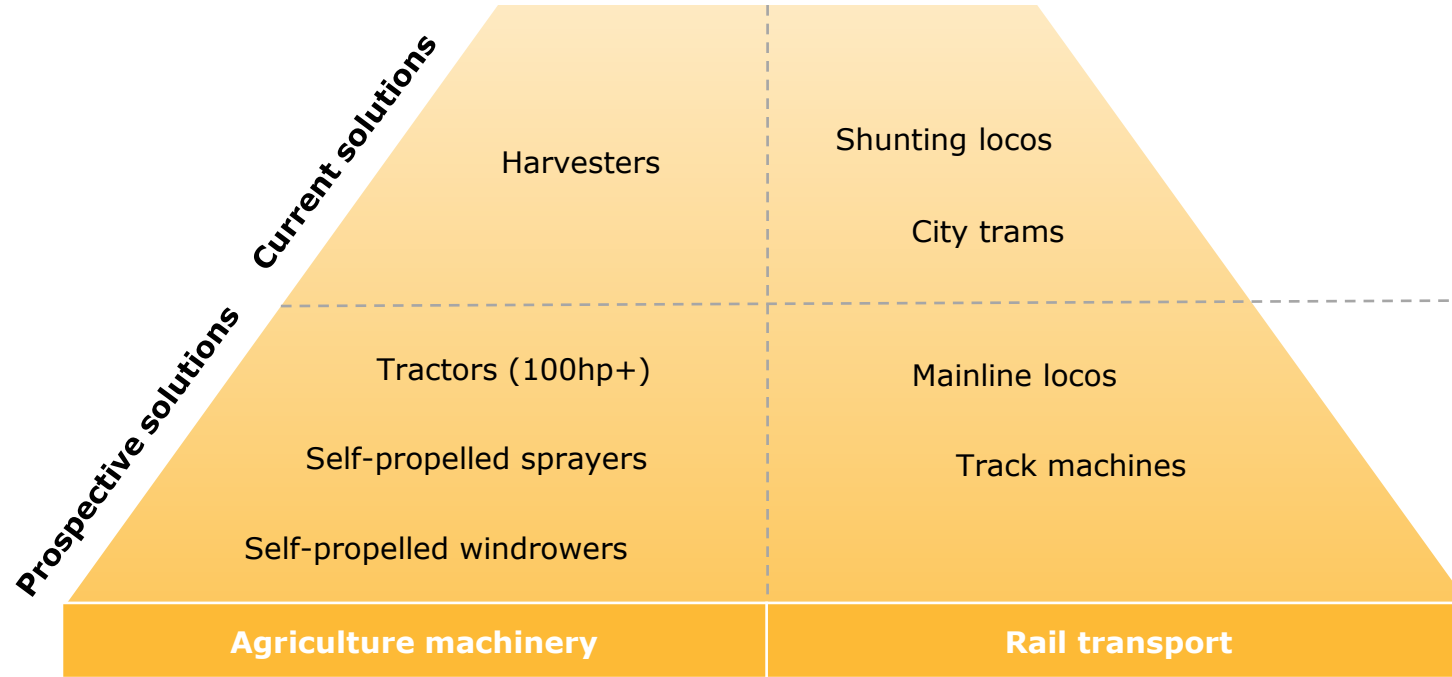


- An AI-based autonomous driving system for shunting locomotives and city trams

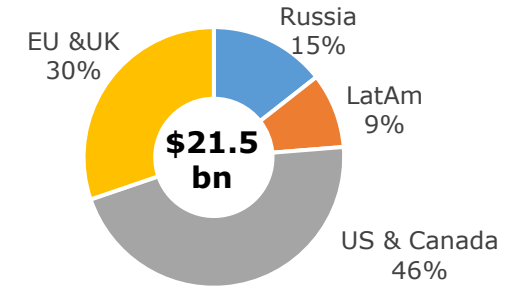
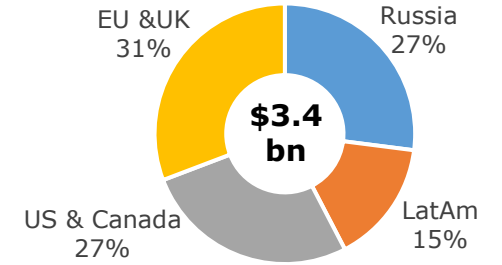
- Rolling stock operators (10-20)
- City tram operators
- Largest OEMs (3-5)

- Meets strict industry standards
- Proven efficiency in difficult weather conditions
- No-GPS self-localization

Our target markets are large...



Market size



	Agriculture machinery	Rail transport
Total fleet (mln units)	2.2	0.2
Average equipment cost per vehicle	\$8.0-9.5k	\$35-60k
Total addressable market	\$80 bn	\$100 bn
Penetration of ADAS solutions ⁽¹⁾	70-80% of newly produced Ag machinery	~100% of newly produced Rail machinery

Notes: (1) Including GPS based solutions





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...and underserved with AI solutions...







All existing ADAS solutions offered by competitors in Ag and Rail are based on outdated GPS technology and lack many important functions

Cognitive Agro Pilot vs. alternative solutions

		  
Independence from satellite navigation	✓	✗
Special purpose driving ⁽¹⁾	✓	✗
Work in a random field	✓	✗
Detection of artificial and natural obstacles	✓	✗
Precision level	5-15cm	3-15cm ⁽²⁾

Cognitive Rail Pilot vs. alternative solutions

		  
Steering assistance with identification of traffic lights, closed switches, other objects	✓	✗
Highly effective system for accidents / collision prevention	✓	✗
Control of human operations using AI	✓	✗
High accuracy location tracking	✓	✗
Automation of specific operations requiring operator's adherence to strict instructions	✓	✗

We develop a cutting-edge next generation solution for autonomous vehicles in Ag and Rail machinery markets

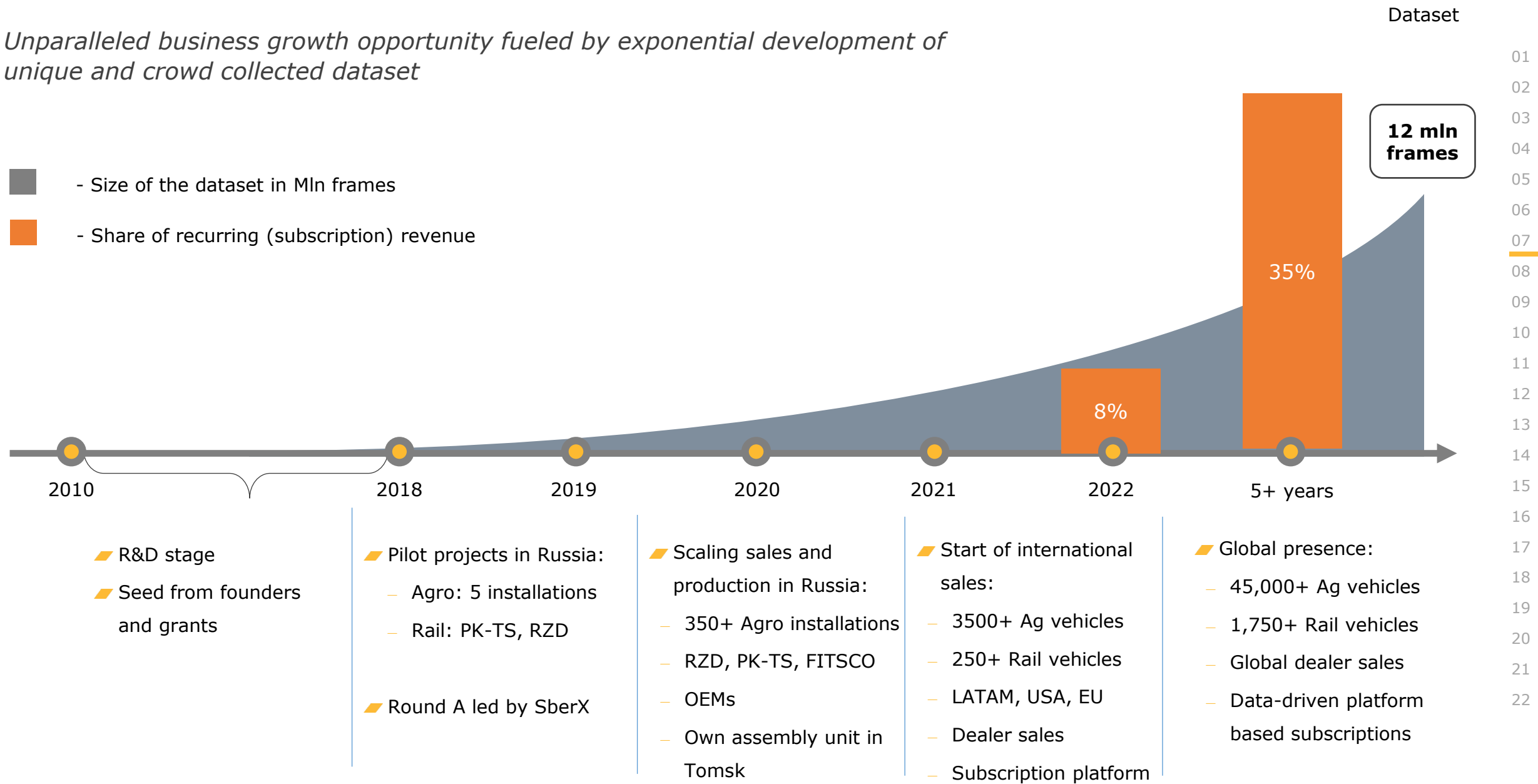
Notes: (1) Driving along crop rows, crop edge, windrows (2) With RTK corrections, pre-mapped

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...which provides exceptional growth opportunity for our business



Unparalleled business growth opportunity fueled by exponential development of unique and crowd collected dataset



Key challenges faced by Ag companies



Relatively low precision of harvesting resulting in material crop losses



High level of driver's fatigue resulting in accidents / collisions in the field



Elevated fuel consumption caused by downtime and insufficient harvesting efficiency



Cognitive Agro Pilot value-add



Reduction in harvesting time by an average of up to 25% and 8–13% reduction in direct crop losses



Decrease in repairs expenses driven by reduction in mechanical incidents and longer service life for equipment



10% savings in fuel consumption driven by reduced downtime and higher harvesting efficiency



15% reduction in personnel costs driven by increased productivity



Quick installation and easy maintenance

Installed at 10 combines, Cognitive Agro Pilot helps to save more than \$45k per annum resulting in consistent ROI of 50%+

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Cognitive Agro Pilot – key product highlights



Off-grid driving assistant for Ag machinery with unparalleled level of accuracy, safety and efficiency

Retrofitting kit for after-market vehicles



1. CPU with AI
2. Video camera
3. Control tablet on Android
4. Digital hydraulic steering
5. Steering angle sensors

Product highlights



Precision driving assistant accurate to 5 cm



No GPS needed

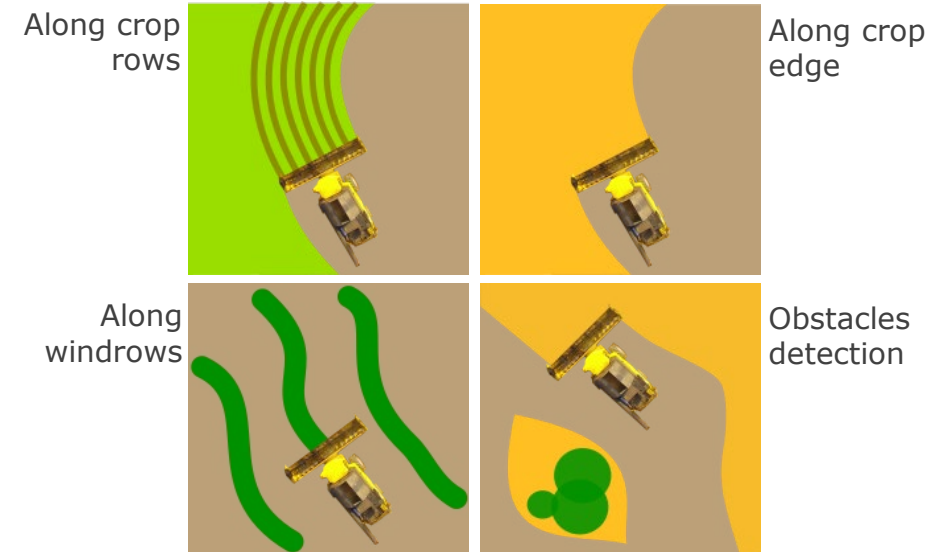


Over-the-air upgrades and data-collection



On-the-go mapping for precision farming

Driving tasks



Current clients

- 350+ installations in 2020 in Russia, including top-10 farm producers with aggregate land bank of 1.5M+ hectares
- Pilot project with **CNH industrial** – world’s #1 Ag machinery OEM
- Dealership contract with EcoNiva - **John Deere’s** largest partner in CIS

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Key challenges faced by Rail transport companies

X Very high cost of railroad accidents frequently caused by human factor



X Elevated fuel costs and high percentage of downtime driven by inability to effectively track location for shunting locomotive's operations



X Insufficient efficiency of operations led by violation of transportation rules caused by human factor



Cognitive Rail Pilot value-add



Increased safety through collision prevention system - 40% decrease in number of accidents



8% savings in fuel consumption resulting from downtime reduction enabled by high accuracy location tracking system



Reduction in personnel costs given increased productivity



Quick installation, easy maintenance and proven reliability in harsh conditions

One installation of Cognitive Rail Pilot helps to save more than \$110k per annum on personnel, fuel and less frequent repairs in addition to increased safety of operations

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Collision prevention and off-grid self-localization system for rail machinery

Retrofitting kit for after-market vehicles

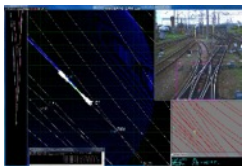


1. 3-lenses camera
2. Millimeter wave radar
3. CPU with AI

Key benefits for clients



Improved safety through assistance to locomotive or tram driver in critical situation monitoring and collisions prevention



Improved efficiency of transportation and reduced fuel consumption through automated and high quality dynamic positioning of locomotive

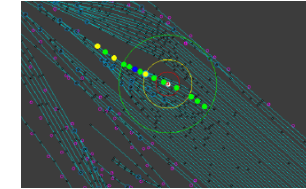
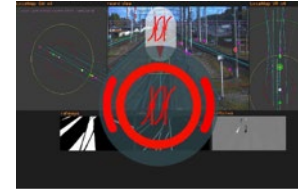
Tasks

Traffic lights detection



Human detection

Switches detection



Off-grid self-localization

Current clients

- **Russian Railways** (RZD) operating 18,000+ locomotives
- OEM contract with **Sinara**, one of the 2 locomotive suppliers to RZD
- Pilot contract with **PK-TS** – a supplier of trams for the Moscow city
- R&D and dealership contract with **FITSCO**, Shanghai tram supplier

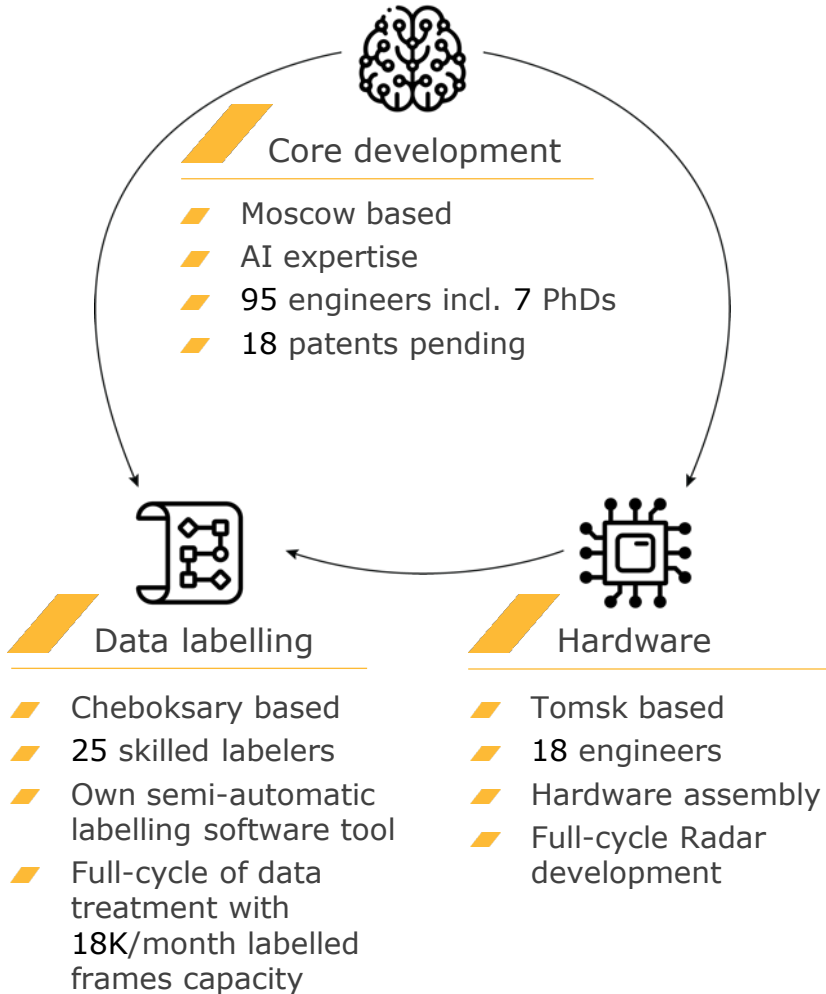


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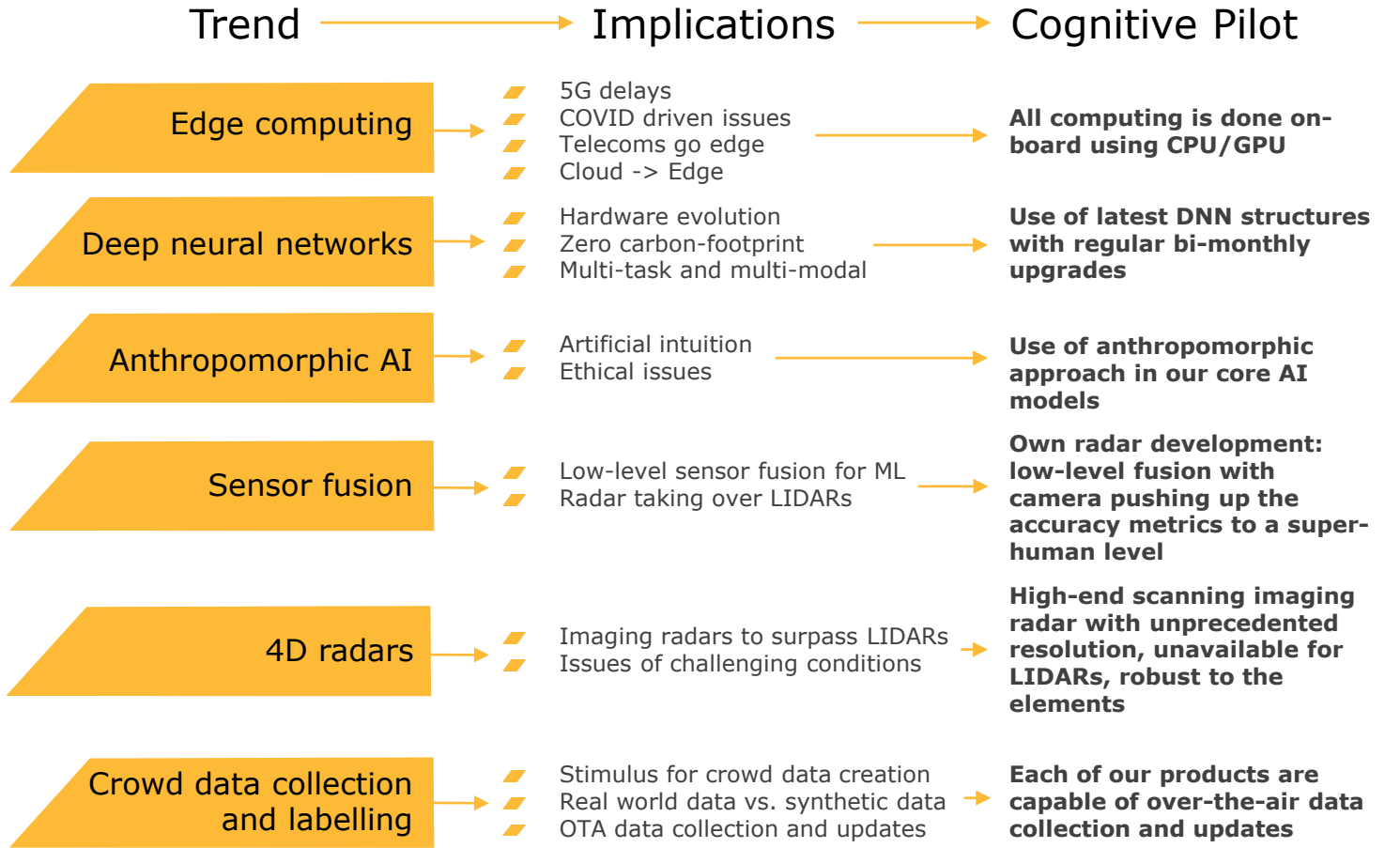
...supported by a comprehensive R&D function and best-in-class proprietary technologies



Own R&D function...



...allowing us to be on top of trending technologies



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We are looking to raise \$10-15M of equity financing

- ▀ Based on the development plan, we need c.**US\$10-15M** of shareholder financing for the next 2 years
 - Base case scenario capital requirement is US\$9M (as per the business plan presented below)
 - Current Round A investor (Sber X) is participating in the financing round pro rata to its current ownership
- ▀ We aim to invest in technology and data set development, business scaling and international expansion
- ▀ We expect to reach breakeven on EBITDA and Free cash flow basis by 2023

Use of proceeds

Indicative business plan

1 Technology development

- ▀ Enhancement of R&D team to further develop our technology with focus on subscription based functions
- ▀ Data collection and labelling team enhancement
- ▀ Other data capturing and treatment costs

2 Sales and marketing

- ▀ Sales team development, incl. international sales
- ▀ Marketing and travel expenses

3 Production capacity development

- ▀ Hiring additional development and production personnel
- ▀ Purchase of required materials and equipment
- ▀ Certification, patents registration

\$ mln	2021F	2022F	2023F	2024F	2025F
Total revenue	15.1	34.8	101.3	179.9	271.6
COGS	(9.6)	(18.2)	(50.0)	(73.5)	(86.8)
Gross profit	5.4	16.6	51.2	106.5	184.8
R&D expenses	(3.5)	(6.6)	(11.1)	(15.6)	(18.8)
Sales, marketing and G&A	(6.0)	(10.7)	(17.9)	(25.4)	(31.1)
EBITDA	(4.0)	(0.7)	22.2	65.5	134.9
CAPEX	(1.0)	(3.6)	(8.0)	(12.5)	(16.5)
Incl. Data set development	(0.6)	(2.4)	(6.3)	(10.4)	(13.6)
Incl. Manufacturing & testing	(0.4)	(1.1)	(1.6)	(2.1)	(2.9)
Free cash flow (FCF)	(5.0)	(4.3)	14.2	53.0	118.5

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Specialized and highly diverse data set as the key source of long-term competitive advantage

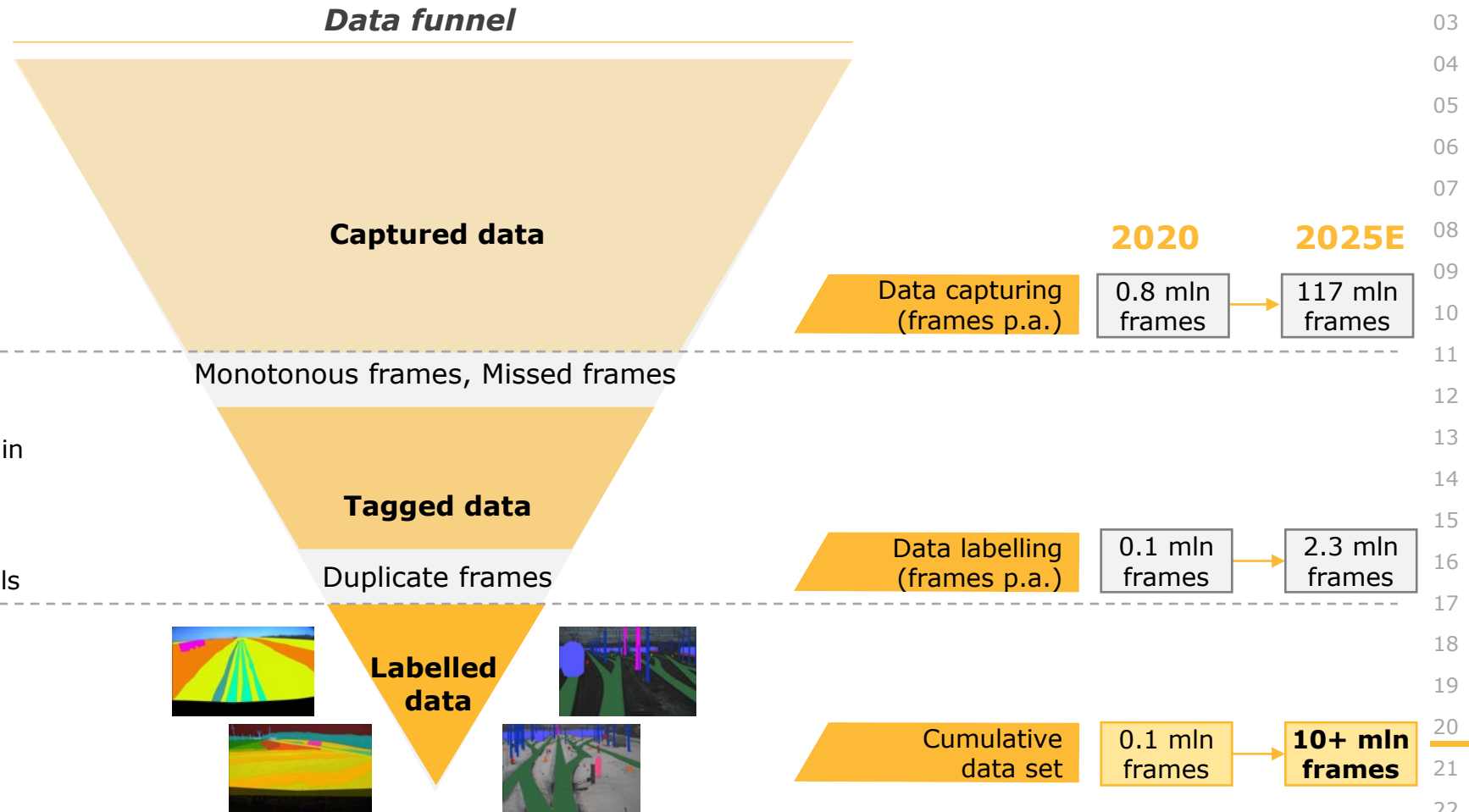
- We have been focused on data set formation since inception of our business and are **now miles ahead vs. competition**
- Data is a **cumulative core asset** for our business and technology: **hard to collect – impossible to catch up**
- Technology shifts – data stays

Highly diverse and unique data

- Our data is collected over-the-air by clients' vehicles in operation
- Real-time data is transferred to cloud storage for further processing
- All types of object classes, view angles, light and weather conditions

Unique labelling expertise

- Own and well-trained labelling team based in Cheboksary, Russia
- Unparalleled expertise in data labelling for use in agro- / rail- AI enabled ADS
- Proprietary semi-automated processing tools



Our long-term aim is creation of specialized and highly diverse data set of ~10mln+ frames, which would allow to secure market leadership and strategic partnership with the largest OEMs

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1 An emerging global leader in AI for zero-waste farming and smooth transportation

- /// Pioneered in AI enabled ADS for agro and rail machinery
- /// Unique technological competencies, including one-of-a-kind data set

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2 Large and unpenetrated market

- /// \$25bn+ total addressable market for ADS solutions in agro- and rail- markets
- /// Balanced sales structure

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3 Highly scalable and subscription-oriented business model

- /// Asset-light business model with focus on B2B markets with paying customers
- /// Strong in-house R&D function and proprietary state-of-the-art technologies with proven efficiency in commercial use

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4 Global leadership focused development strategy

- /// Active international expansion with global leadership ambitions
- /// Long-term focus on partnerships with OEMs

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5 Highly experienced and motivated management team with strong shareholders support

- /// Management team led by the founders
- /// SberX as a strong financial and business development partner in CIS

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