# VENTURE CAPITAL AND THE FINANCING OF INNOVATIONS BY EUGENY KUZNETSOV





#### **Overview**

**Digital Evolution Ventures**, an investment vehicle of Orbita Capital Partners LLC ("Orbita Capital" or the "Firm"), has been formed to capture attractive investment opportunities in leading emerging and developed market technology companies

**Orbita Capital** believes technology investments represent a particularly attractive investment opportunity. Technology growth in both emerging and developed economies has been largely uncorrelated to volatility in GDP growth, making it relatively resilient against macroeconomic movements and country-specific risks

**Orbita Capital's** target size is \$200 million for the creation of a portfolio of top-tier and market-leading technology companies that (i) are located in both emerging and developed markets and serve their domestic markets, (ii) utilize talents and expertise in Russia but operate globally



### Technology corporations with their own VC branches



Many large global corporations have either created corporate venture funds or have invested in market funds

Corporate Fund is one of the tools which helps a corporation to form its strategic vision. A Fund, being familiar with many startups, informs a corporation about new technologies and emerging trends

Corporate Funds invest in startups, which do not necessarily belong to the sphere of corporation's interests at the moment, but may become such in the future



# Priority sectors (1/5)

### Target industries examples



Healthcare Drone appliances Smart billings Technology-driven learning

#### Smart Energy



Energy Storage Nuclear Instrumentations Renewable Energies Smart Grid

#### Industry 4.0



3D printings & materialsDigital TwinsComputer Vision & SensorsAI applications

#### Smart&Green City



Smart & Efficient Buildings Green Buildings & Cities Logistics & Transportation Al services





# Priority sectors (2/5)

#### Example of priority industries

### Industry 4.0

The fourth industrial revolution implies massive introduction of cyber-physical systems in production. Manufacturers of robots are implementing commercial solutions that use real-time data from sensors mounted on robots, such solutions are often based on a service model. Market participants expect a rapid growth of the cloud computing market that would allow manufacturers to either control robots individually, or to control them as a connected industrial chain

The robotic services market is expected to reach **\$83 billion** in 2020, according to Allied Market Research forecast

Manufacturers of robots are offering leasing of robots, which allows them to actively promote these technologies to medium and small companies

According to the International Federation of Robotics, number of industrial robots installed will increase from 1.8 mln to 3 mln. At the same time annual production of robots will exceed 500 thousand units by 2020

World's industrial robots production, 000 units



Source: International Federation of Robotics 2017

ABAGY robotic cell example





# Priority sectors (3/5)

Example of priority industries

### Artificial intelligence (AI)

Data is often called "the oil of the future". Al technologies are used in various industries in order to improve efficiency and find opportunities for additional revenue or savings. Such applications were previously impossible because of poor functionality of information analysis tools

According to McKinsey, AI-based technologies can potentially influence positively and add some \$3.5 to \$5.9 trillion in revenues for 19 different industries

McKinsey study revealed that 69% of AI applications resulted in improvements that could not be achieved even by a team of staff with a set of existing analysis technologies

Retail, industrial manufacturing, oil and gas and chemical industries will benefit the most from AI implementation



# Forecast of revenue increase driven by AI applications in different industries, \$ trln





## Priority sectors (4/5)

#### Example of priority industries

### Energy storage

Explosive development of renewable energy in developed and emerging markets entails a global renewal of basic energy infrastructure. Energy storage devices that effectively match disparate energy sources with potential consumers are becoming central elements of new power systems

Another market driver is the increase in number of electric devices, including electrification of cars, and subsequently, other types of transport. The main barrier to the market growth is the efficiency, cost and speed of charge of energy storage devices. It is expected that all mentioned problems will be solved in the coming years

The most dynamic energy markets are observed in China and India

According to Navigant Research energy storage market will reach **\$26 billion** by 2025 (will grow 6 times compared to 2017)

Global energy storage facilities market, \$bn



#### Industrial energy storage PRIMUS





## Priority sectors (5/5)

Example of priority industries

### Virtual / Augmented reality (VR / AR)

Development of digital information display technologies makes possible construction and perception of virtual objects

These technologies' primary application is in entertainment industry (VR-glasses). According to International Data Corporation, sales of VR devices will reach 69 million units by 2022 (CAGR 52.5%)

More and more industries are starting to use that technology for various purposes - from prototyping and design to tourism and medicine

Technological giants are investing billions in VR & AR projects. Facebook spent \$2 billion on purchase of Oculus and their VR headset. Samsung in collaboration with Oculus VR also released devices for virtual reality in addition to their smartphones product line VR and AR market, \$ bn



VR technology by InsiteVR

