Mobilis Robotics: Smart Sound Beacons

Solution for blind and visually impaired

The problem

Presently, blind or visually impaired people travel around the city using assistive white cane. This method of navigation remains the same for thousands years.

Using **white cane**, user can reach place of interest with **accuracy about 5m**.

***The last few meters are remain a problem**, so user spend a lot of time finding exact location of building entrance, road crossing, transport cabin door, cashier desk.*

The ramp solves the problem of achieving the desired goal for wheelchair users.

Why don't blind people have such a solution?

The solution

Mobilis Smart Sound Beacon

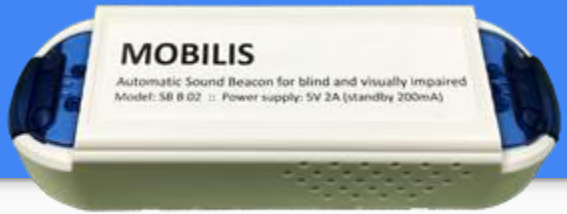
What is sound beacon?

Sound beacon is a navigation device for blind or visually impaired people. The device emits a periodic sound that allows a person with limited vision to locate the object: entrance to the building, transport cabin doors, etc.

Sound beacon is "last meters solution" and works on audible distances ~5..20m.

Existing sound beacons produce sound all the time and **create noise pollution** in urban areas. This prevents mass deployment of classic sound beacons.

Mobilis Smart Sound Beacon



Mobilis sound beacon emits sound only when blind person is nearby, solving problem with noise pollution.

To activate the beacon, blind person can use smartphone with free “Mobilis Go” app **OR** special pocket device (activator).

Mobilis solution “unlocks” mass deployment of sound beacons in the city infrastructure.

Why do people need a smart sound beacon?

Blind people (as any other people) use: government buildings, shops, cafes, hospitals, postal offices, transport vehicles etc.

The beacon makes location more accessible and **may be required by compliance law**.

Smart beacons are silent, until they need by blind user.
No noise = no complaints from surrounding people.

Mobilis Sound Beacon

Features

- Natural audio navigation
- Automatic activation / deactivation
- Smart Off mode
- Voice Messages
- Easy Wireless Customization
- Hardware Integration
  - Transportation
    (voice announcement of route number)
  - Traffic lights
    (voice announcement of crossing status)
  - Smart City
    (sensors, IoT, management)
- Cloud Integration

Mobilis Sound Beacon

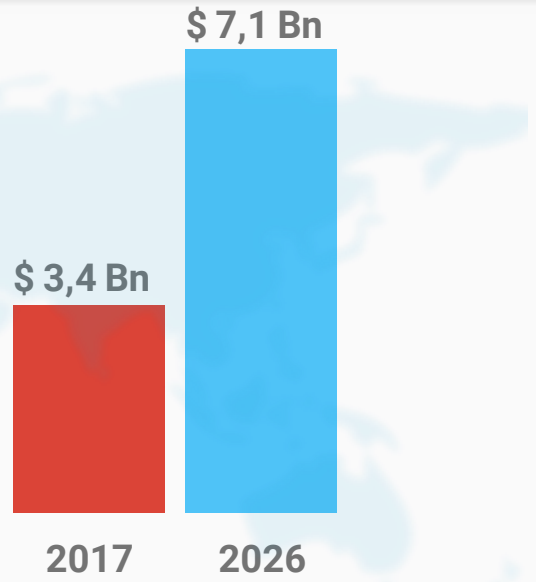
Advantages

- Noise free solution
- Do not require Internet to work (“eventually connected” architecture)
- Activation options for smartphone users and non-smartphone users (so 100% of blind users covered)
- Handsfree operation mode via patented auto activation mode
- Solutions for buildings, public transportation, traffic lights, bus stations etc.
- Extra voice information provided by smartphone from integrated cloud platform

The Market

Now there are more than **200M** blind or seriously visually impaired people worldwide.

The global **assistive technologies market for visually impaired** was valued at US$ 3.4 B in 2017 and is anticipated to reach US$ 7,1 B by 2026, expanding at a CAGR of 8.5% from 2018 to 2026

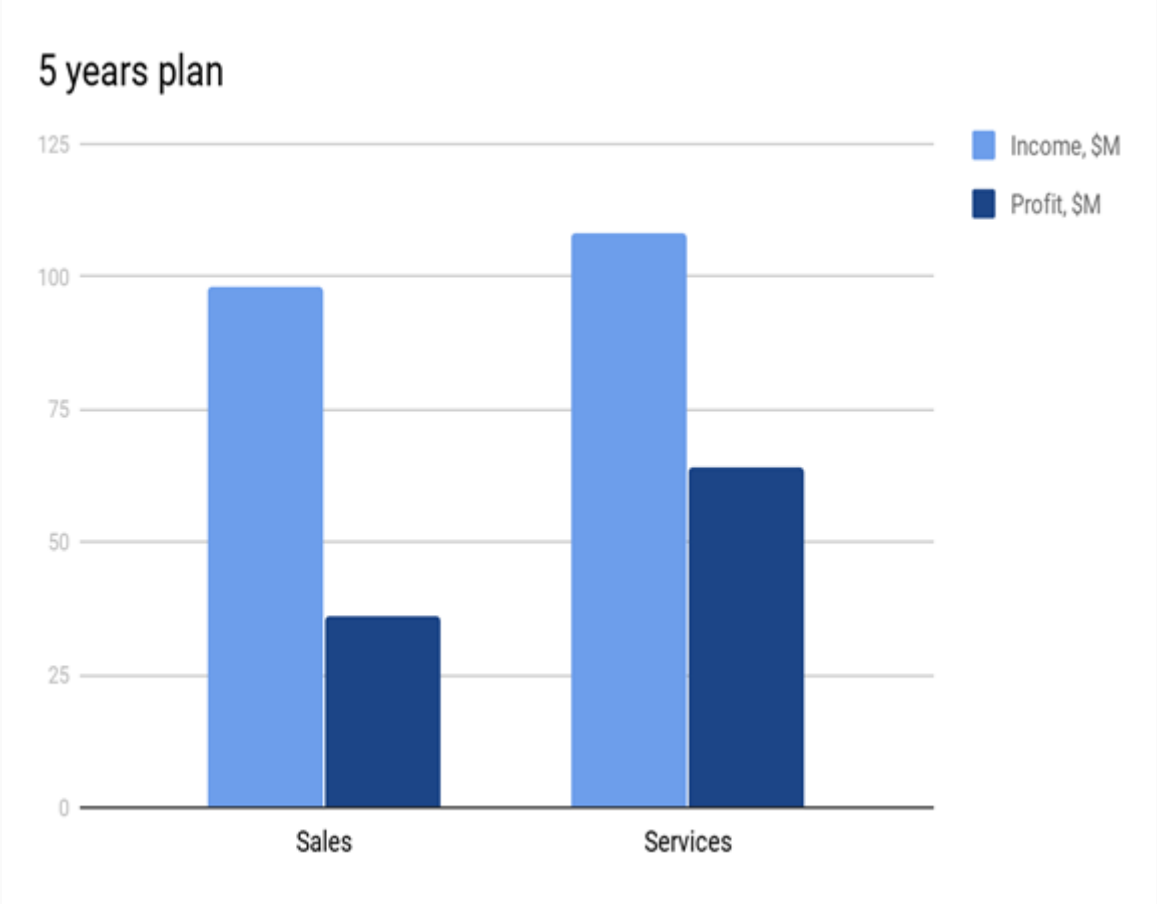


Business Model

Manufacture and sell device worldwide

Subscription revenue from beacon owners

Revenue from premium and advertising services



The Market: Capacity expectations

Geographic area	Population, Mn	Beacon Units required, Mn	System Users (estimated), Mn	Total initial sales, $Mn	Total recurring revenue, $Mn/year
Developed countries	1000	1,8	10,0	305,0	115,0
Developing countries	6000	6,3	60,0	625,0	250,0
Worldwide (total)	7000	8,1	70,0	**930,0**	**365,0**

Competitive Landscape

One competitor's "activation by demand" solution exist but ...

Okeenea (France) developed similar solution in 2018
It has slow adoption curve because of pricing tag, complex maintenance and may require radio spectrum regulation license permit

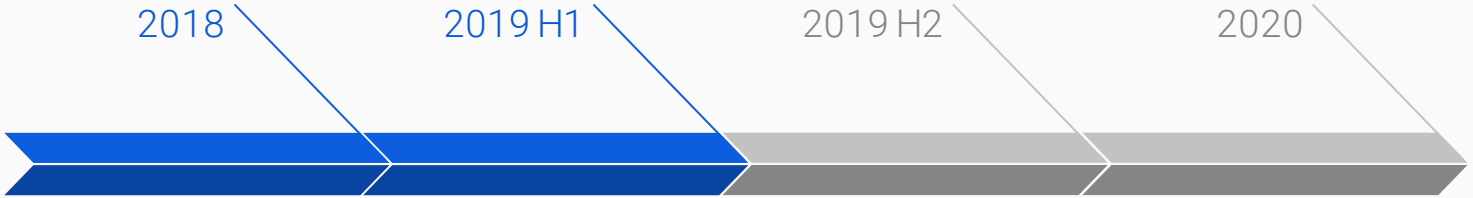
Because our disruptive ideas, our solution is:

- **5x times cheaper (beacon price tag starts from ~ $100)**
- **much easier to use (due our patented activation solution)**
- **much easier to install, maintain and support**

We have "packed" several advanced ideas to address problems and lower the costs: We use mass production COTS components, do seamless firmware update over-the-air, use Bluetooth BLE

Project Status

Mobilis Sound Beacon manufacture and sales started in 2018
We are have LOIs from potential sales partners worldwide
We are seeking investments to enter international markets



Beacon for building

- Development
- Pilot installations
- Manufacture
- Sales

Beacon for transport

- Development
- Pilot installation
- Manufacture
- Sales

Beacon for traffic lights

- Development
- Pilot installation
- Manufacture
- Sales

Solar Powered Beacon

- Development
- Pilot installation
- Manufacture
- Sales

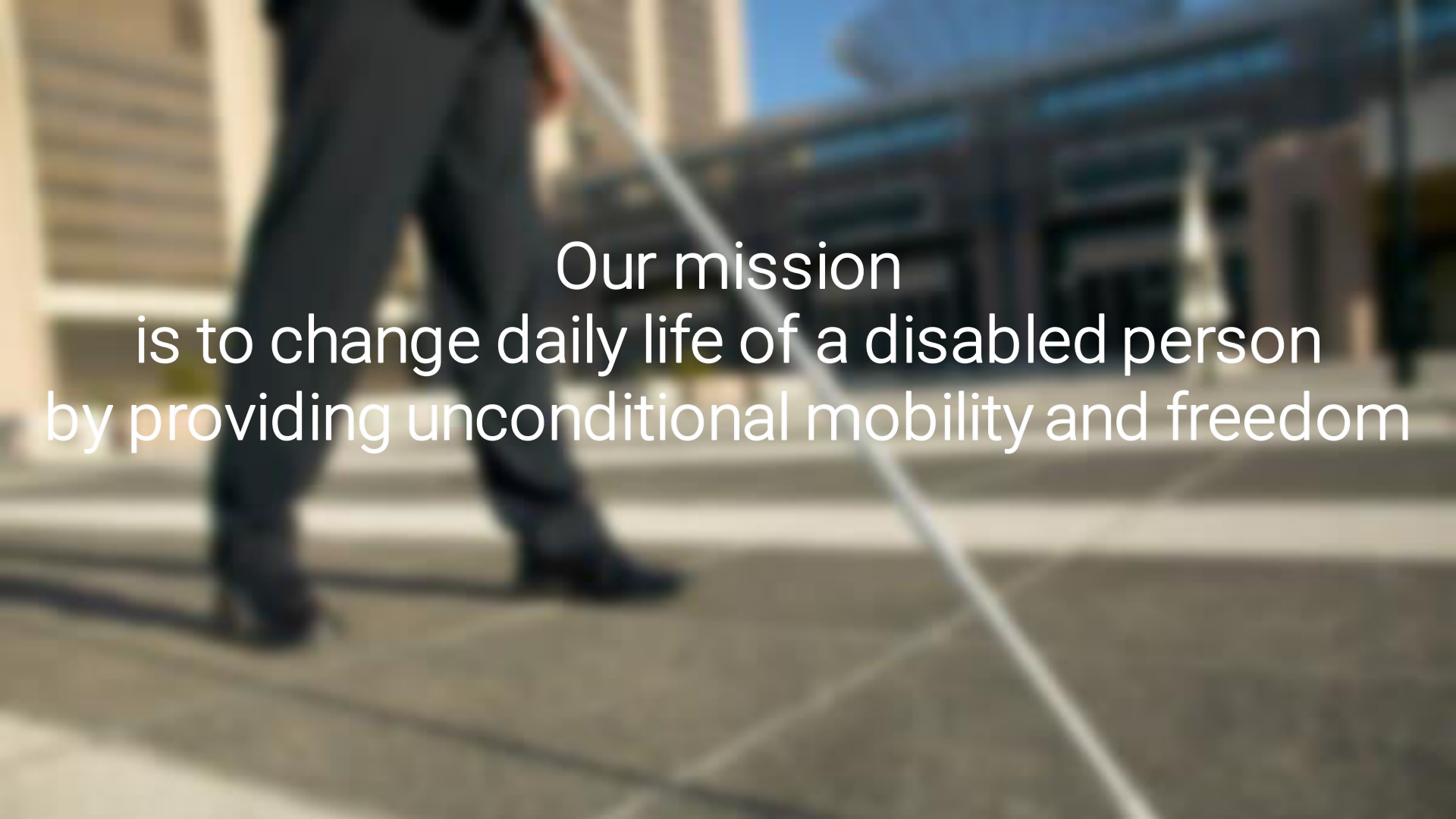

MPK S.A. w Krakowie
DR 534
KR 2AK55


KRAKOWIAK
Miejskie Przedsiębiorstwo Komunikacyjne S.A. w Krakowie

Mobilis Sound Beacon also can be used as IoT solution on the field of **improving working conditions and safety for blind people or workers.**

Mobilis Sound Beacon can

- notify blind people about possible danger on the road and where is the safe path
- notify a worker that s/he crossed the danger zone where the crane works


Our mission
is to change daily life of a disabled person
by providing unconditional mobility and freedom

Our team

We develop innovative accessibility solutions using modern AI technologies.

Subhash C. Vashishtha (Sunny)

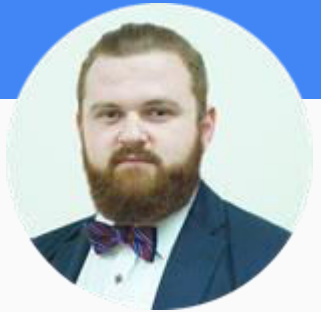
CEO

Serge Ageyev

CTO

Viktor Vilchinsky

CPO



Paweł Groński

Product Manager

Development Team

Sergey Prokhorchuk

AI Research

Pavel Lyashko

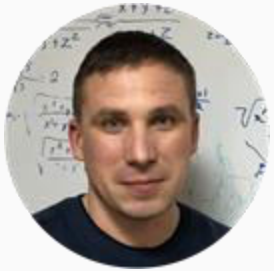
Mobile Developer

Julia Korchemna

Web Developer

Oleg Yurchenko

Electronic Engineer



Andrii Humeniuk

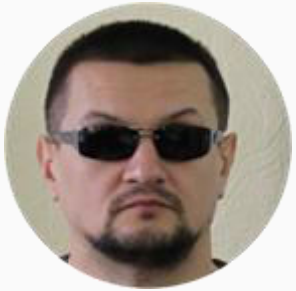
Robotics Engineer

Anastasia Tkachuk

Embedded Developer

Yuri Bezsmertny

D.Sc.Med
Medical Consultant



Konstantin Ilinitsky

Vision Accessibility Consultant

mobilis
ROBOTICS

http://mobilis.io
info@mobilis.io