

Dear colleagues, I appreciate meeting with you. I am similar with smart grid, in particular IoT sensors for the transmissions lines of #Rosseti and #Gazprom.

We are looking for strategic investor supporting startups that share our passion for transforming the energy sector.

- IoT, Distributed energy, smart grids, mini-grids
- Smart districts & buildings (energy monitoring, management, efficiency.

We are:

Experienced and versatile team with high energy, clear vision and strong execution capability.

SLUSH and NTI presentations were done.

Details of financial proposal will be send by request.



IoT Sensor for distribution grids 6-35 kV

Trend: Sustainable development. Flat Network management system

2019 HELSINKI #SLUSH

http://amastpl.com http://amastpl.ru





Our proposal for future grid is changing the transmission system operator to a flat Network management system consisting of traditional sources and newly created microgrids.



Transmission system operator becomes an Integrator



illiehwa

Highlights drivers: to create and run flexible encode IoT control sensors

Options

winning business model options for transmission system operator

- 1. Industrial safety control
- 2. Strong, well-balanced development and grid monitoring
- 3. Database collection (own data «factory») for predictive Analytics and customer behavior
- 4. Pricing and customer service

BETTER VISIBILITY, STABILITY and FLEXIBILITY

Digital mapping of your technical grid parameter. Determine the data ecosystem of your grid best suited to your region or organization.

TIME SAVINGS

Reduce time on maintains, exclude outage. Start flat management system.



COST REDUCED

Outsourcing of physical maintenance of grid or its sale. Optimize the daily management of each part of grid, create their digital value.



What we are looking for:

- 1. Experienced mentor who will help to bring the product to the global market, advice or control the business model and guide in the right direction to increase sales.
- 2. Direct investments in trial projects with requesting practical issues (ACTUAL, for instance, extreme conditions)
- 3. Access to testing laboratories
- 4. Requesting issues to create new product in the direction of RnD
- 5. The possibility of integrating in Predix platform from GE

To achieve the goal it is required:

- 1. Clarification of current issues and requirements from grid companies or market leaders (ABB, Siemens).
- 2. Customization of the sensor according requirements.
- 3. Integration into Predix GE.
- 4. Set network of LoraWan base stations or using existing solutions (for instance Ericsson's global IoT).
- 4. To do trial project.
- 5. Start Serial sales and manufacturing.
- 6. Integrate sensor in key points of the grid for monitoring and predicting "closed" zone.
- 7. Improvement of the Algebraic Methodology for processing monitoring results.

Plan

business model roadmap



Brief project description:



Our first product - The Fault Indicator. It's stay in touch with panel operator:

- 1. Indicate Damage on the line short circuit (losses, non-expected ice, temperature)
- 2. Data collection to determine the causes of the accident
- 3. Data collection to predict behavior of consumers



The Fault Indicators market was valued at 159 Million US\$ in 2018 and is projected to reach 183.5 Million US\$ by 2025, at a CAGR of 2.1% during the forecast
period: 1. SEL – 10-11% 2. Horstmann – 10-13% 3. Cooper Power Systems 4. ABB (Thomas & Betts) 5. Elektro-Mechanik GMBH
6. Siemens 7. Bowden Brothers 8. Schneider Electric

Advantages:



- The international LoraWan standard and AMAST soft allow to create a network of base stations (one station covers up to 10 km and up to 1000 devices). Company becomes a service company ("data factory"). This is technical base for the "flat" management model.
- Solution can be scaled in global markets through the inclusion to the General Electric Predix IoT platform.
- Sensor and AMAST soft allow to reduce power consumption and increase the range for data transmission (more service life).
- Microprocessor software and designed microplate allow to flexible respond to market requirements and develop vertical IoT solutions (expand functionality and control ice, temperature, current, etc.).
- The AMAST solution consists of three sensors (master and two satellites), which independently determine each other when installed. This simplifies installation and excludes the human error factor.
- The AMAST sensor has power take-off from overhead lines (vs battery).
- EU patent will be obtained by Q4-2020 year. The application has been prepared, but we are waiting feedback from done first sale.





Technical data and comparison with others - upon request ds@amastpl.ru

Team:





Smaznov Denis Strategy, Financial, Safety

Education: Peter the Great St. Petersburg Polytechnic University, engineer. Postgraduate study. He began his career as an engineer in 2006 in the international company Eltel Networks (Transmast in St. Petersburg). In 2009, he left the company as Chief engineer. Since 2010 he has been Deputy EMEA Director in Russia and CIS region of Valmont, a recognized world leader in the industry. Since 2015 GM at Amast Power



Practician, genius in technical solutions Education: St. Petersburg Polytechnic University of Peter the Great, engineer ICE. An experienced engineer with the skills of management team. Deep knowledge of electronic and electrical engineering, the modern analog and digital hardware, industrial computers and telecommunication equipment.



Mingatchev Timyr Sales Director

Predict customer wishes and see the highlights for the customer's business



Dzhambulatov Rinat Project manager of Fault indicator

Education: St. Petersburg State University, faculty of Physics, bachelor. Specialization: Applied mathematics and physics. He was engaged in research in the field of nuclear magnetic resonance. The research results were presented at the international conferences "Science and Progress" (2010 and 2012) and NMRCM 2012 "NMR in Heterogeneous Systems", " Spinus "(2011 and 2012) and "Actual problems of magnetic resonance and its applications" (2012).

Extra: Politecnico di Milano, School of Civil, Environmental and Land Management Engineering. Specialization: Civil Engineering. Politecnico di Milano is ranked 24th in the world among technical universities in the QS ranking. He started his career at Amast Power lines.



Pepelov Pavel IoT-programmer: To do:

quickly write code according standards applied in our company, because this code will be viewed in the future by other developers, so you should write code quickly, competently, thoughtfully and with auto formatting.
ability to quickly understand other people's code and debug it. Our projects consisted of 5000 lines and 50 files, although written for microcontrollers, for the above reasons it was necessary to debug them quickly and efficiently.



Rodchihin Sergey Chief specialist of electrical part

Education: Peter the Great St. Petersburg Polytechnic University, master's degree. Specialization: electric power and electrical engineering.

Area of responsibility: the fundamental electrical processes and scientific research.

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