

Israel – Ruta N Smart Cities Call for Proposals

EXPRESSION OF INTEREST

1. Project Participant

Company name: Netux S.A.S

Website: www.netux.com

Year established: 2009

Type of company: R&D Research institute University Other

Stage: Seed R&D Initial revenues Revenue growth

Ownership: Public Private Governmental Other

Number of employees: 45

Number of R&D personnel: 17

Company contact information

Address: Circular 3 73-34, Medellín, Colombia

Contact person

Name: Juan Londono Montoya

Title: Director of innovation

Phone: +57 (4) 448 03 68

Mobile: +57 314 883 6766

Email: juan.londono@netuxtecnologia.com

2. Organization Background

General Business Description & Area of Expertise

Netux are an expert company in the development of technological solutions based on technologies such as IoT, Big Data, Artificial Intelligence, Data Analytics and Extended Realities, among others.

Our experience is based on the design, development, deployment and support of solutions for the health, retail, environmental and industrial sector. Through technological tools we help different sectors to develop their strategies and improve their processes.

Technology Description (Main Products/Services) and IP

We are experts on design and develop of electronics. Our devices have the ability to capture, process and transmit data in a simple way. We have achieved design, develop and integrate, different technologies that allow to enable possibilities to sense or measure different variables in different locations and conditions, sometimes even, the most adverse conditions.

We have two patents of invention, one of them is our own, achieved in 2013 and the other one, is a license that we obtained in 2018 from a partner university with which we worked more than 10 years.

Our main products are:

eHealth:

- Nursing call system
- Monitoring cold chain
- Turn management (kiosks)
- Medical emergencies system
- Web scheduling system
- Traceability system in the operating room

Retail:

- Noise measurement system
- Person counting system
- Vending machine management system

Environment:

- Monitoring resource consumption (water, energy, gas)
- Measurement of air quality
- Weather stations
- Flow and level of rivers
- Monitoring of solar radiation

Industrial IoT:

- Structural health (bridges, buildings, structures)
- Monitoring of energy generation plants
- Monitoring tank level

Targeted Customers

Netux work with corporate clients (B2B): clinics, hospitals, production plants, assemblers, packing houses, production companies, government

Sales (over the last 3 years)- if applicable:

i-1: 2018 – USD 1.140.000

i-2: 2017 – USD 986.000

i-3: 2016 – USD 823.000

3. General Information

Project Title: MiEmergencia (MyEmergency) – Medical Emergencies System

Technology Sector:

- Electric Mobility, Autonomous Mobility, Smart Mobility, Vehicle Technology.
- Digital city
- Information city
- **Cognitive Smart City XX**
- Energy, street lighting, smart buildings, distributed energy resources (DER), data analytics, and smart transportation.
- Environment
- Public safety

Submission Date:

January 31, 2019

Summary:

The solution is developed as an information system that allows the capture, registration and integration of data resulting from the management and operation of all system components (NUSE, Mobile App, MiAph, MiUrgencia, MiPaciente, Information to the community), which will lead to the development of management indicators, monitoring and evaluation of results for the continuous improvement of the quality of the SEM under the standards and technological and operational requirements established by the Colombian Ministry of Health and Social Protection.

However, this solution is scalable and replicable to other cities in Latin America with the same problems in their health system.

Project Start Date:

February 1, 2019

Project End Date:

November 30, 2019

4. Budget:

Total Project Budget:

USD 300.000

Requested IIA grant (% of budget):

USD 210.000 (70% of budget)

Requested Medellín Partner Support:

a) Data capture of physical resources availability in IPS:

Data acquisition module for availability of physical resources, with direct transmission to the MyEmergency platform, to validate availability of resources such as: number of beds, blood

banks, diagnostic equipment, authorized services and specialized assistance personnel in the institution.

b) Integration middleware in the backend:

Engineering development of the backend software application, to integrate all the actors of the EPS / IPS network / Secretaries of Health, under standard integration and operability protocols to have all the information in real time articulated and available in the solution.

c) Superior layer module of Artificial Intelligence:

Finish the development of the decision support module using Artificial Intelligence, so that the system automatically addresses and / or recommends the IPS that has the availability of resources to attend to the patient according to the event, making recommendations through the application and correlation of decision variables such as distance, traffic, services enabled, availability of resources, among others.

5. Project Outline:

Project Description

My Emergency is a system that allows to manage medical emergencies from the integration of all available resources: ambulances, clinics, hospitals, EPS, citizens and other actors of the health system; taking into account information in real time and in an intelligent manner, in order to provide the community with access to health services with opportunity, efficiency, relevance and quality.

The proposed solution is developed as an information system that allows the capture, registration and integration of data resulting from the management and operation of all system components (NUSE, Mobile App, MiAph, MiUrgencia, MiPaciente, Information to the community and MyHospital Resource), which will lead to the development of management indicators, monitoring and evaluation of results for the continuous improvement of the quality of the SEM under the standards and technological and operational requirements established by the Ministry of Health and Social Protection

Market Potential and Commercialization Plan

To Colombia, the total size of the market includes the territorial entities providing health services, responsible for payment of health services (among which are EPS-health providers-, IPS, blood banks, tissue banks), first respondents, health funders, districts, municipalities of special category and of first category, to the department Archipelago of San Andrés, Providence and Santa Catalina, metropolitan areas and Departments of the country in articulation with each other and with other entities.

As of 2014, there were around 18,959 IPS (health care institutions) and qualified hospitals in the country, of which 534 are of medium complexity and 41 are of high complexity, that is to say,

that in 575 IPS most of the emergencies and emergency services in the country are concentrated, additionally we can mention that the entities that carry out special transportation are 424 reported

Description of the size of the market in numbers in Colombia:

Number of inhabitants (year 2017) 49,292,000

Amount of IPS (year 2014) 18,959

Number of doctors (year 2014) 85,345

Medicalized transport (year 2014) 424

On the other hand, in some explorations carried out in different countries of Latin America such as Peru, Ecuador, Bolivia, Chile, Argentina and Mexico, it has been identified that the problems in the emergency attention systems can be covered with solutions like the one proposed by Netux. In this sense, the market expands, initially to Latin America and the Caribbean.

Currently, Netux has deployed the system in the city of Medellín and is negotiating with cities in Colombia such as Bogotá, Pereira, Manizales, Bucaramanga, Santa Marta, among others.

Expected Outcome of Project

It is expected to have a robust system that allows the management, decongestion and improvement in the quality of care of emergency services. In which all the actors of the ecosystem can make decisions from the available resources exposed and managed through our system, generating social appropriation and higher insertion of the community in the general health system, based on the cutting-edge technology a cognitive, open and more human smart city framework.

Short Profile of the Key Staff who will be Undertaking the Work

The staff dedicated to the project consists of software and hardware engineers with language development capabilities such as: Javascript, Java, Python, HTML, CSS, C, MPLAB and ECLIPSE platform and Altium.

The main staff:

Juan Camilo Vanegas: Electronic engineer, Master of Engineering

Julián Vásquez: Electronic engineer, Master of Engineering

Cristian Martínez: Electronic engineer, Master of Engineering

Juan Pablo Velásquez: Electronic engineer

Víctor Sandoval: Software engineer