

SARGASSO

Request for Development (RFD)

Titel of RFD: OceanConnected

Organization: Virtualdive, France

Deadline for expression of interest: 20.12.2019

Q&A: Eva.Errestad@ri.se

Tel. +46 (0)706-419932

Short summary

Our SME Virtualdive, based in the Paris region, is searching for a Swedish engineering company specialised in marine technologies that will include mechatronics, computer sciences (C++) and telecommunications (fiber optics, WiFi, 4G/5G) to participate in the development of our European project « OceanConnected ».

The OceanConnected project aims to change the perception society has from the undersea through online education, participative discovery, exploration and research.

Summary

The OceanConnected project aims to change the perception society has from the undersea through online education, participative discovery, exploration and research.

This will be addressed by visualizing a network of thousands of diving sites dispersed around the world through televirtuality. This is a digital process that allows a user located at point A, fixed or mobile, to teleport his eyes and his hearing, instantly and in real-time, to a remote point B, fixed or mobile, through a qualified operator, equipped with special devices, for diverse environments, such as, sea surface, sea depths, land or aerial.

It targets, in special, school children and youngsters, which are realizing that it is their future that is in play. But they have no direct and easy access to ocean knowledge. This is the problem that the project attempts to solve.

Objective The access points to ocean global aquatic realm constitute a network of thousands of diving sites dispersed around the world. They are the entry points for those that became scuba divers. Nevertheless, they still remain inaccessible to 99,6 % of mankind.

The objective of the project is to integrate into internet these access points that allow divers to discover and explore oceanic depths and make these sites accessible also, in real-time, to all people, with a click and at a marginal cost. The process is named “**virtual dive**” and it is based on a business model of innovation for value creation.

Scope of the project

Solution By associating the diving community with the network of internet users, VirtualDive introduces in the market an offer of value unprecedented in aquatic applications of new technologies. A disruptive innovation – **televirtuality**, the technical process supporting virtual dive, allows the deployment of an original business model that is represented by an online multi-sided platform where global networks, concerned by ocean, will interact. The project is conceived to attract users 24 hours a day, 7 days a week along the year, thanks to a network of licensees diving around the world which are the producers of diving contents.

Televirtuality is a digital process that allows a user located at point A, fixed or mobile, to teleport his eyes and his hearing, instantly and in real-time, to a remote point B, fixed or mobile, through a qualified operator, equipped with special devices, for diverse environments, such as, sea surface, sea depths, land or aerial.

Market The diving market now estimated at 6 million divers, with this approach, by coupling real and virtual activities, becomes 50 to 100 times larger. The cost of virtual dive is reduced to 5% of the average cost of scuba diving. One third of internet users, presently over 4 billion people, would like to practice diving and are therefore the potential users of virtual dive.

OceanConnected merges actors of markets presently distinct, in a unique space of business activity. Commercial diving from one side and potential partners of virtual dive, from the other side, are associated in the same venture. They are scientific research organizations, aquariums, marine protected areas and aquatic tourism organizations, such as hotels and resorts, public swimming pools, beach managers. For the first time they will be interacting as players in the same market space represented by a common web platform.

Competitive advantage Aquatic immersion, without considering the costs of travelling, lodging and equipment rental, is a source of fear, which is a serious obstacle for a majority of would-be divers. Therefore, virtual immersion, allowing interactivity and social networking, offer a unique digital alternative to actual water immersion. But the

A collaboration proposal coming to you from SARGASSO

magic of underwater diving imagery, received in real time, is kept unchanged and even enriched by augmented and mixed realities. The offer of value is evident. With the improvements of 3D image processing, 5G telecommunications and artificial intelligence, we can expect that virtual dive will surpass scuba dive, in the near future.

Marketing strategy French exclusive economic zone, the most diversified of all, with 11 million square kilometres of marine space, on four oceans, with 10% of coral reefs and 20% of atolls of the world, represents a decisive marketing opportunity for the project.

This exceptional but still largely ignored heritage, even by policy makers, will be enhanced in cooperation with regional agencies, diving clubs and marine research laboratories of these territories. An essential zone of the European oceanic space, it constitutes a privileged way for launching the internationalization of the project as it includes a large variety of marine ecosystems, which are already active sources of aquatic tourism.

VirtualDive is a family owned SME, with a capital of 175K€, registered as a SAS in the RC of Versailles. The company has no financial or legal liabilities and has full control of its intellectual property and references.

Background

Virtual Dive conceived and developed OceanConnected, a result of the evolution of the project Digital Ocean financed by the French National Research Agency (ANR), followed by its extension within the framework of the European Commission's R&D program FP7 (RSME262160). The total amount of French and European funding received for the project represents 2.2 million euros, over a period of six years. This project is the result of a European financed program FP7 and from various other projects financed by French R&D agencies. It results from various market studies on the status of the scuba diving industry and the reasons why scuba diving remains a niche market with aging customers and with no positive impact on the protection of marine environment, on the contrary, becoming one of the sources of its degradation.

Preferred Partnership

Our SME Virtualdive, based in the Paris region, is searching for a Swedish engineering company specialised in marine technologies that will include mechatronics, computer sciences (C++) and telecommunications (fiber optics, WiFi, 4G/5G) to participate in the development of our European project « OceanConnected » as a project partner.

SARGASSO IS PART FINANCED BY



Opportunities for partners

We are discussing with the European Investment Bank and with the new European Commissioners the ways to develop this project within the plan Green Deal for Europe and would very much appreciate the inclusion of a Swedish partner in our team.

Financials As per our forecasts, the project shall generate, five years after launching, revenues of €14.5 million and net profits of €3,5 million. Revenues will be composed by sales of proprietary equipment to licensees, subscriptions from platform users, licensee fees and special events. After the 5th year, with the improvement of underwater contents, associated to 3D imagery, 5G telecommunications and artificial intelligence, integrated in the underwater robots and the development of surveillance operations with the system Telwalk, the company will experience an accelerated sales growth to cover, as industry leader, the global digital diving market, few years later. This forecast is based on an initial investment of €1.5 million to get first results introduced in the European market in 2020 and to be fully operational by 2022, two years before the Olympic Games of Paris, so to be able to prepare, organize and demonstrate the integrated system and all its six different applications in a swimmable Seine River, in the heart of Paris, during the Games.