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Press contact

Agence C3M
+33(0)1 47 34 01 15

Michelle AMIARD
michelle@agence-C3M.com

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Two trophies at the Loading the Future 2014 Awards for the marine broadband router

▪ **Microwave Vision Group (MVG) and its partners were awarded two prizes for their marine broadband router at the *Loading the Future 2014* event organized by the innovation hub *Images & Réseaux* on October 15. ▪ A world first, this solution provides professional and recreational mariners and their passengers with low-cost Internet access.**

The result of two years of research

Until now, only the lucky few on racing boats or commercial transport ships could afford the luxury of broadband using on-board satellite equipment, which costs at least €15,000 in equipment plus communications priced at \$1/min for calls and \$20/Mb for data. As for fishermen, yachts, research vessels, wind farms, coastguards and sea rescuers, their only option until now was VHF radio, with its 10 Kbits/s. Just enough to read a few emails and access weather reports...

A French innovation has come along to change all that and MVG has played an active role in the project, alongside other technological leaders. It uses TMS, or **Terminal Marine Stabilisé** [Stable Marine Terminal], to provide low-cost broadband at sea. This innovation was the recipient of two prizes: **the Innovation Prize, sponsored by Banexi Ventures, and the Images & Réseaux Grand Prize, sponsored by Bpifrance**, at the Loading the Future 2014 Awards, which was organized by the innovation hub *Images & Réseaux* on October 15. This project, which emerged two years ago within two innovation hubs, "Images & Réseaux" and "Mer Bretagne Atlantique", is the result of a collaboration between **Thales Communications & Security, Alcatel-Lucent, Déti, Telecom Bretagne and MVG.**

Broadband for all mariners in the coastal areas

The TMS router will enable **high-speed communications** with the shore in a radius of around ten nautical miles. If connected to a WiFi router, **passengers will also have access to wireless broadband.** There are two variants of the system, one for the **general public** and the other for **marine professionals.**



The TMS, *Terminal Marine Stabilisé*, is comprised of a transmitter-receiver and two models of antenna depending on the desired reach and the size of the vessel. The most powerful model is made for large vessels as it allows the antenna's beam to be continually adjusted to increase its reach. The other model is simpler, which makes it more financially accessible for recreational mariners.

Expected release date: early 2015

Retail price: around 1,000 euros including VAT for the Public model

Experts in Antenna Measurement Systems leading the way at MVG

With its reinforced mechanics, the TMS is made for the maritime environment, and is designed to withstand humidity and salt spray. It also takes into account **the specific characteristics of wave propagation above the sea, as well as the effects of pitching and rolling motions on board**. This is where MVG really came into its own. **The project relied on the company's traditional core business: the Antenna Measurement System (AMS) department.**

"The antenna systems were improved in order to maintain optimal communications at sea. This involved adaptation of radiation patterns, mechanical stabilization or electronic defocusing. MVG's antenna measurement technologies were required at all stages of the project for the development of the terminals", explained Yann Toutain, project manager at MVG.

Telecom Bretagne adapted and implemented the propagation models and recommended the implementation of antenna with spatial diversity; Thales Communications & Security, the project owner, worked on the focusing algorithms linked to the electronic switched-beam antennas; MVG developed all of the LTE modems and antennas; Déti worked on the mechanical stabilizer and Alcatel-Lucent worked on the virtualization of the LTE core network and the OpenTouch service platform.

The original source-language text of this announcement is the official, authoritative version. Translations are provided as an accommodation only, and should be cross-referenced with the source-language text, which is the only version of the text intended to have legal effect.

**About the Loading the Future Awards**

The 4th edition of the Loading the Future Awards was held on October 15, 2014 at 4BIS in Rennes, and was organized by Images & Réseaux. This year, the Awards celebrated collaborative R&D projects identified by the hub as being in line with market opportunities. At the end of a morning of presentations before a jury made up of sector professionals, financiers and customers, six prizes were awarded. In accordance with its phase 3, the hub chose to combine this year's Awards with two days of conferences on "Digital Opportunities" organized by the city of Rennes in partnership with Québec International.

See the following link for more information: <http://www.images-et-reseaux.com/fr/trophees/le-dispositif>

About MVG – Microwave Vision Group

Since its creation in 1987, Microwave Vision Group (MVG) has developed a unique expertise in the visualization of electromagnetic waves. These waves are at the heart of our daily lives: Smartphones, computers, tablets, cars, trains and planes -- all these devices and vehicles would not work without them. Year after year, the Group develops and markets systems that allow for the visualization of these waves, while evaluating the characteristics of antennas, and helping speed up the development of products using microwave frequencies.

The Group's mission is to extend this unique technology to all sectors where it will bring strong added value. Since 2012, MVG is structured around 4 departments: AMS (Antenna Measurement Systems), EMC (Electro-Magnetic Compatibility), EIC (Environmental & Industrial Control), and NSH (National Security & Healthcare).

MVG is present in 9 countries, and generates 90% of sales from exports. The Group has over 300 employees and a loyal customer base of international companies. The Group generated revenues of € 51.5 million in 2013. MVG has received the BPI "Innovative Enterprise" certification, and is eligible for PEA-PME.

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