

Tapping Satellite Technology

The EU Horizon 2020 innovation project and a vision

By Anders Brandter, Global Marketing and Sales at Forsway

Swedish SATCOM solutions provider Forsway was recently awarded a development grant from the EU's Horizon 2020 flagship innovation project to further develop its vision to increase broadband availability around the globe.

With the H2020 grant, the satellite hardware and technology provider aims to attract a larger portion of the market, accelerate growth globally and achieve its vision to provide solutions that enable broadband for all.

What is Horizon 2020?

Horizon 2020 is the largest EU Research and Innovation program ever with nearly €80 billion of funding available over seven years (2014 to 2020). It promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market and aimed at securing Europe's global competitiveness.

Background

Forsway has already developed and deployed broadband technology and satellite router solutions that tap the combined abilities of satellite and broadband networks, using its toolkit and ecosystem "Forsway Xtend." These solutions are aimed at connecting the large demographics of people in low service areas or regions previously lacking reliable internet access, considered too hard to reach or unprofitable.

The technology is developed to eliminate the need to deploy additional network infrastructure, creating significant time and investment saving for satellite operators and service providers and well-suited for regions with reduced infrastructure and capacity.

Already deployed in Europe, Africa, APAC and Latin America, these deployments, plus ongoing trials in Nigeria, Zimbabwe, Middle East, India and discussions with Latin American operators, provide an important source of feedback for the company. This feedback is systematically evaluated and used in Forsway's planning for how to develop Forsway Xtend.

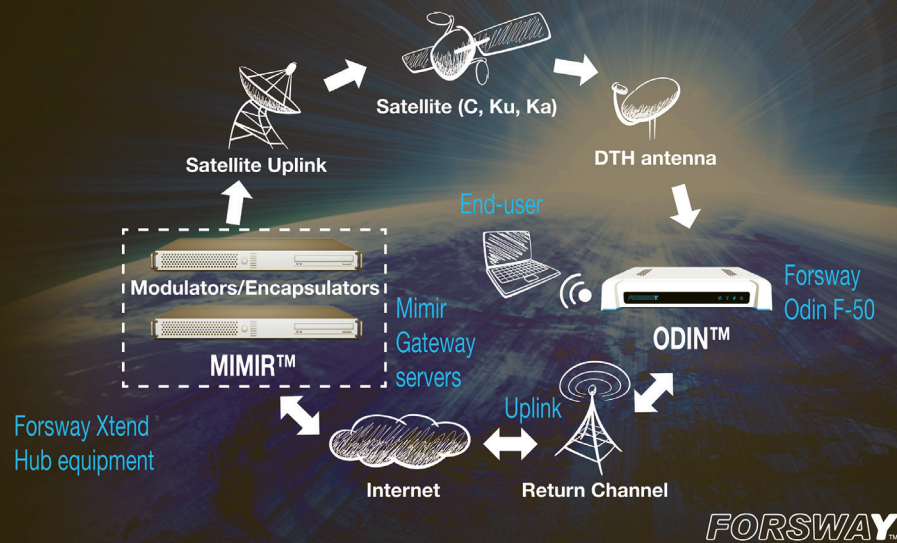
The purpose of the recently awarded EU grant is to carry out — over a pre-defined period of six months — a feasibility study to identify how the company shall develop Forsway Xtend, to better meet the requirements of their customers and further advance the solutions and products to attract a larger portion of the market and accelerate Forsway's growth globally.

Target Market

End-users of this technology are consumers, SME's, schools, government offices, internet cafes, WiFi Hotspots, village and community centers — all players who need a reliable internet connection for entertainment, work-related activities or access to public services.

To reduce the digital divide and to increase prosperity globally new low-cost broadband solutions are needed — now.

COMPLETE SOLUTION Forsway Xtend



Target customers are satellite operators who are provided with a new business model to reach untapped markets, cost-effectively, taking advantage of unused bandwidth. Local service providers can provide the reliable, affordable internet access that is critical to the development of previously underserved regions.

DTH players interested in adding broadband to their current TV offering, as broadband / internet is increasingly the preferred method of which video is delivered as most video is IP based OTT content. Thus, both DTH players and satellite operators who see the traditional TV viewing being eroded can find a new delivery method and revenue stream by adding Forsway's solution.

Other key players who acquire and benefit from the technology include local and regional Communication Services Providers, (governmental) Community Services entities and education establishments, making corporate social responsibility a key aspect of Forsway technology and development.

The Bigger Picture

Billions of people cannot access Internet due to infrastructure deficiencies, mainly in emerging markets but also rural areas in Europe and USA. To reduce the digital divide and to increase prosperity globally new low-cost broadband solutions are needed — now. The deployment of fiber networks and the launch of new satellite systems is a matter of years.

Forsway aims at providing solutions based on existing technologies, taking advantage of the recent expansion of satellite capacity and the opportunities offered with a fast combination and integration with terrestrial technologies, primarily mobile.

Cellular technologies such as 3G and 4G are not cost-effective to provide broadband in areas with low population density or low ARPU. Satellite technology has for a long time been the most cost-effective technology to provide TV broadcast services. Combining these two technologies into a hybrid satellite – cellular solution combining the ubiquitous downlink coverage of satellite and low-cost uplink of mobile technology is at the heart of Forsway's broadband offering.

Work Within the H2020 Framework

The European Innovation Council (EIC) awarded 1 million euros to 20 Swedish companies in March of 2019. On the highest level, the companies are supported with a view to address a strategic challenge for Europe: The continent excels in science but needs to increase its output of market-creating innovation.

The world's biggest funding program (Horizon 2020) needs to achieve greater impact by supporting innovation that create new markets, so breakthrough innovation projects with the potential of scaling up in new markets are in focus. Thus, Forsway's situation and solution is in pole position to meet the challenge. Forsway Xtend offers the necessary technical solutions for the main components of the system (i.e., the components have achieved TRL, Technology Readiness Level, of 8 or 9), the total system, including the relevant mechanisms to accelerate the contribution to bridging the digital divide, can be further enhanced. The complete solution can be improved in collaboration with customers, suppliers and partners to ensure it meets their evolving needs and future growth requirements.

Horizon 2020 Grant

Forsway's grant, 50,000 euros for the feasibility study (also called "Phase 1") will mainly be employed to finance consultations with and visits to customers and the customers' customers in order to capture requirements that can enable Forsway to make a stronger impact globally. This is in line with EIC's desire to see new market-creating innovations.

The Way Forward

The company was able to garner the support of one of the world's leading global satellite operators, a major Asian satellite operator, and an Asian communication services provider. During the feasibility study these players will provide their insights into how Forsway can enhance their offering. Participation will target both technical terms and key aspects of business modeling such as price structuring, how to aggregate demand from various end-users in typical emerging markets or distribution and partnering aspects. Further, they may act as test partners for new solutions in a potential Phase 2 project.

Regarding business modeling, Forsway has already started to discuss revenue share schemes with suppliers/partners providing satellite capacity in customer projects.

In the application process, Forsway also created a Board of Advisors consisting of four international experts coming from the academia and telecommunications / satellite industries active in the emerging markets.

A potential Phase 2 project could entail considerable development efforts and a significant grant and budget from the EU Horizon 2020 project. The application period opens in early 2020.

Anders Brandter heads up Global Marketing and Sales at Forsway. He has been active in the satellite industry for ten years and in telecoms for three decades, working primarily with emerging markets for leading innovative companies such as Ericsson, Telia-Sonera and tech start-ups. Having lived in Latin

America and Africa, Anders has also spent considerable time in Asia, particularly in India, and has a special interest in matters related to the reduction of the digital divide in underserved regions.



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