

Space Shift and Wegaw Reached an Agency Agreement to Collaborate on Snow Monitoring Technology for Hydroelectric Power Plants

~ Monitoring snow and water to optimize asset management ~

Space Shift Inc.

Space Shift Inc. (Headquartered in Chiyoda-ku, Tokyo; CEO: Naruo Kanemoto, hereinafter referred to as "Space Shift") has successfully established an agency agreement with Wegaw S.A. (Headquartered in Lausanne, Vaud, Switzerland; CEO: Ion Padilla, hereinafter referred to as "Wegaw"), a pioneering Swiss enterprise specialized in geospatial and machine learning technologies to monitor snow and water resources in order to help Japanese hydropower companies in optimizing their renewable energy production.

【Overview of Agency Agreement】

Space Shift Inc. has entered a strategic business alliance with Wegaw, marking a significant step towards harnessing the power of geospatial insights. This collaborative endeavour is driven by the shared goal of delivering Wegaw's established Snow and Water data to Japanese customers operating hydroelectric power plants. The partnership's core objective is to facilitate asset optimization, minimize financial risks, and enhance the overall efficiency of infrastructure operation and management.

Moreover, the alliance presents an exciting opportunity for the integration of Space Shift's disaster monitoring technology, specifically its flood area detection capabilities, with Wegaw's snow and water digital twins in the future phases of the partnership.

【Management of snow and water in hydropower operations】

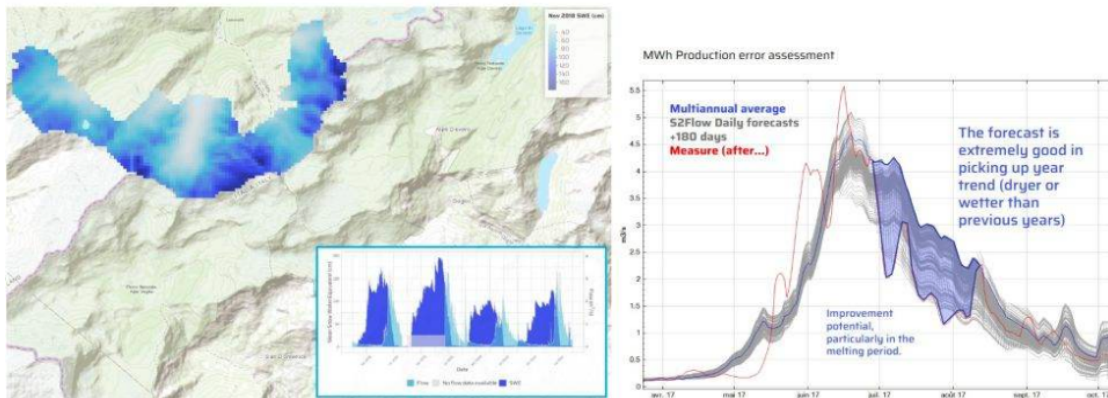
To ensure optimal operation of hydropower plants, it is crucial to effectively monitor and control the inflow of water from nature and potential upstream dams. This entails not only monitoring the water inflow from the upstream area, but also keeping track of accumulated snow during winter and the subsequent water volume upon melting. Presently, operators rely on on-site inspections to observe these factors, but their assessments are limited to surface conditions and temporary observations. Additionally, the workload is considerable as workers must cover a vast area at the dam or rely on costly machinery such as helicopters for field surveys. Considering this situation, there is a need for solutions that enables remote monitoring of current snow conditions and water volume during snowmelt, as well as short-term and long-term forecasts instead of temporary predictions to support decision-making and create clean energy security.

Wegaw's geospatial fusion technology to monitor snow and water

Wegaw uses a globally deployable geospatial fusion technology that combines satellite data, helicopter surveys, drone data, and in-situ observations to swiftly monitor snow and water in otherwise inaccessible areas with up to daily frequency. This monitoring technology allows the company to generate precise maps of HS (Snow Height), indicating the depth of accumulated snow, and SWE (Snow Water Equivalent), representing the water volume which will be released when the snow melts.

Moreover, this technology has the potential to enhance the accuracy of predicting inflow water volume into hydroelectric power plant-managed dams, as well as optimize asset management and repair plans for structures like dams and turbines. By estimating not only current conditions but also future inflow water levels after snowmelt, Wegaw's snow and water digital twins enable unique insights for better decision-making.

TRADING OPTIMIZATION THROUGH LONG-TERM WATER/SNOW FORECAST



Visual representation of SWE in a Swiss basin and how these insights translate to long-term forecast for energy trading optimization.

(<https://wegaw.com/snow-water-equivalent-dataset-assessment/>)

Wegaw Company Profile

Company name: Wegaw SA

CEO: Ion Padilla

Headquarters: c/o GMC Gestion Management & Coaching Sàrl, La Ruelle à Tonton 6, Trélex 1270, Switzerland

Established: 2016

URL : <https://wegaw.com/>

Space Shift Company Profile

Company name: Space Shift Inc.

CEO: Naruo Kanemoto

Head office location: Otemachi Building 6F, 1-6-1 Otemachi, Chiyoda-ku, Tokyo

Established: December 11th, 2009

Capital: 274 million Japanese yen

URL : <https://www.spcsft.com/>

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