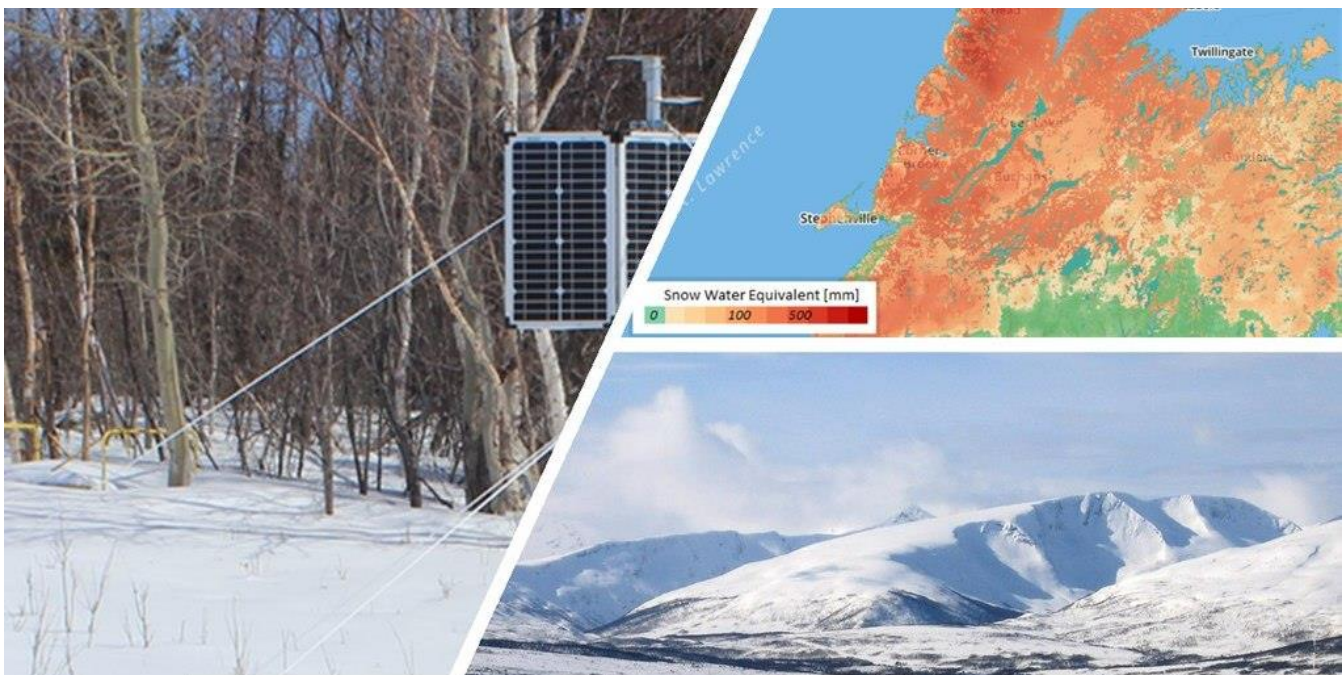


To provide **spatial and temporal continuous information on the snow cover**, the water balance is calculated using meteorological inputs and the parameters of the land surface by a physically model (PROMET). Meteorological inputs / Numerical Weather Prediction NWP input enable weather station independent calculations and forecasts. The direct snow measurements from the SnowSense® In-Situ stations and satellite derived spatial snow information are assimilated for exact and reliable results. Calculation of the run-off and aggregated products of hydro-power potential and forecast is optional. Due to the unique concept of the stations and the model, all catchments and regions can be monitored. Transferable and scalable model approach provides large flexibility in performance and products.



Key Features:

- **Spatial calculation of all water balance and runoff components**
- **Up-to-date snow cover information as main product**
- **Run-off, Hydropower and Forecasts as options**
- **Independency from meteorological station due to NWP coupling, enabling forecasts**
- **Assimilation of measured snow parameters from stations and satellite observations**
- **Based on physical calculations, applicable in all areas**



Setup:

- Digital Elevation Model, Land-surface information, soil and vegetation parameters as basis
- Numerical meteorological models or station measurements as forcing
- Calculation of all mass and energy processes on a physical basis
- Hourly calculation steps and entire area calculations
- 10m to 25 km spatial resolution (typically: 1km)
- Setup will need a period of about 8 weeks

Service:

- Provision of daily maps of the SWE as online map or raster data product
- Assimilation of EO and in-situ station snow measurements
- Provision of the total water storage as snow for selectable locations
- Forecast options depending on forecast data
- Tailored products and information layers on request
- Service has 12-month minimum contract duration

Options:

- Runoff formation calculation incl. lakes, reservoirs and water transfers
- Forecast of snow / SWE, run-off and hydropower production
- Visualisation via online portal or WMS

Basic Specifications	
Main Product	Map of the Snow Water Equivalent
Input Data	Meteorological data (station or model)
Format	GeoTiff or ASCII raster
Resolution	Spatial: 10 m to 25 km, 1 km (typical)
	Temporal: 1 hour to 1 week, 1 day (typical)
Optional Products	Run-off at river location (as table or graph)
	Water stored as snow above location (as table or graph)
	Hydropower Production at power plant (river run-off and reservoirs)
	Visualisation service (portal or WMS)
Delivery Mechanism	Maps and graphs are available for the previous day via ftp or portal SWE and run-off forecast are available 6 hours after meteo forecast release
Options	Integration of existing data and parameters Tailored services

Contact and Sales:

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