New portal provides data foundation for water management and climate adaptation in Denmark

A new Danish portal anchored in the Agency for Data Supply and Efficiency (SDFE) is providing a data foundation for climate adaptation by enabling access to information and knowledge about water.

Created in a collaboration between the state, municipalities and regions under the Joint Public Digitalisation Strategy's initiative on Terrain, Climate and Water, the Hydrological Information and Prognosis System (HIP) is a common public geographical infrastructure based on open data services for the compilation and distribution of national, up to date terrain, climate and water data.

It creates coherence between existing data and model predictions of hydrological conditions to support public and private sector companies dealing with the increased water masses due to changing climatic conditions. The initiative is based on the Basic Data Program’s principles for data sharing with on-going adjustments and improvements based on input from users.

The HIP data portal provides access to a large number of data and model simulations of relevance for water management, including nationwide advanced model calculations of terrestrial groundwater in a 100 metre grid. With machine learning, views have even been developed to the 10 metre grid for historical calculations. Projections have also been made up to the year 2100 and indicate where there may be challenges with high groundwater in the future.

Kristian Møller
Director General, Agency for Data Supply and Efficiency (SDFE), Denmark

“As providers of geospatial information, we support climate initiatives directly with data infrastructures and tools. In Denmark, we expect to see more flooding with excessive rain and high groundwater levels in the future. By providing better tools to assess where and how to act, the new data portal – HIPdata.dk – will support those who work professionally with water management.”

Benefits

• Supports municipal planners, utilities and private companies with better access to near surface hydrological data.

• Provides information to manage flood risks from numerous sources (coast, torrential rain, streams and groundwater).

• Enables climate-robust risk assessment to avoid soil pollution spreading to groundwater and other sensitive water bodies. Maps showing the depth of shallow groundwater are also used to give correct permits for raw material extraction and groundwater lowering, providing knowledge on the local groundwater table.

• Provides information for infrastructure planning and protection of railways and roads against flooding, as well as for the preparation of flood/emergency maps.

• Streamlines existing production and management of water and supports the innovation of data-driven products and services.

• Ensures efficient public use of data, better accessibility and a coordinated open and common data infrastructure, enabling authorities, businesses and citizens to streamline their work with water management and coordinate efforts to mitigate and adapt to climate change.

• Supports economic growth and provides the foundation for a good decision-making for climate adaptation and infrastructure investments.

Visit the portal HIPdata.dk