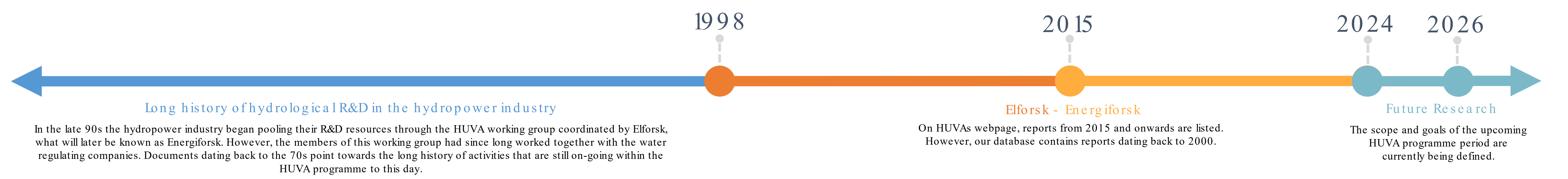




The Hydropower Industry's Hydrological Development Programme - HUVA

The HUVA working group has been around since 1981 with the purpose and goal to provide knowledge and methodological improvements on hydrology and hydrological applications, a basic prerequisite for the hydropower industry. This working group is the foundation for the research and development programme that is managed by Energiforsk. The group ensures that the field continues to progress so that hydropower can remain a successful part of the energy transition. HUVA is the only forum in Sweden where key hydrology-related questions for the hydropower industry are being addressed collaboratively, making it an important and unique network in the field.



Research Funded by the HUVA Programme

The HUVA programme secures funding from the hydropower industry over three-year programme periods. Funded research and development projects mainly focus on the development of forecast strategies and models both to ensure an efficient management of water resources in power generation as well as to estimate the long-term effects of environmental measures. HUVA's activities take place in close collaboration between the hydropower industry, SMHI and academia, which has resulted in valuable areas of co-operation. For example, SMHI's HBV model was originally developed for the hydropower industry in the 1970s and its development has been ongoing since then. Results from the projects funded within the 2020-2023 programme period can be found on Energiforsk.se via the QR-code below.

Programme Period 2024 – 2026

HUVA continuously monitors developments in the field to ensure that the industry is well equipped to face current and future challenges.

Efficient resource management to support a sustainable energy system

As the energy system changes, and intermittent energy production increases, the regulation capacity of hydropower is becoming increasingly important. This leads to higher demands for hydrometeorological observations, high accuracy inflow forecasts and further model development.

The impact of climate change on hydrological flows

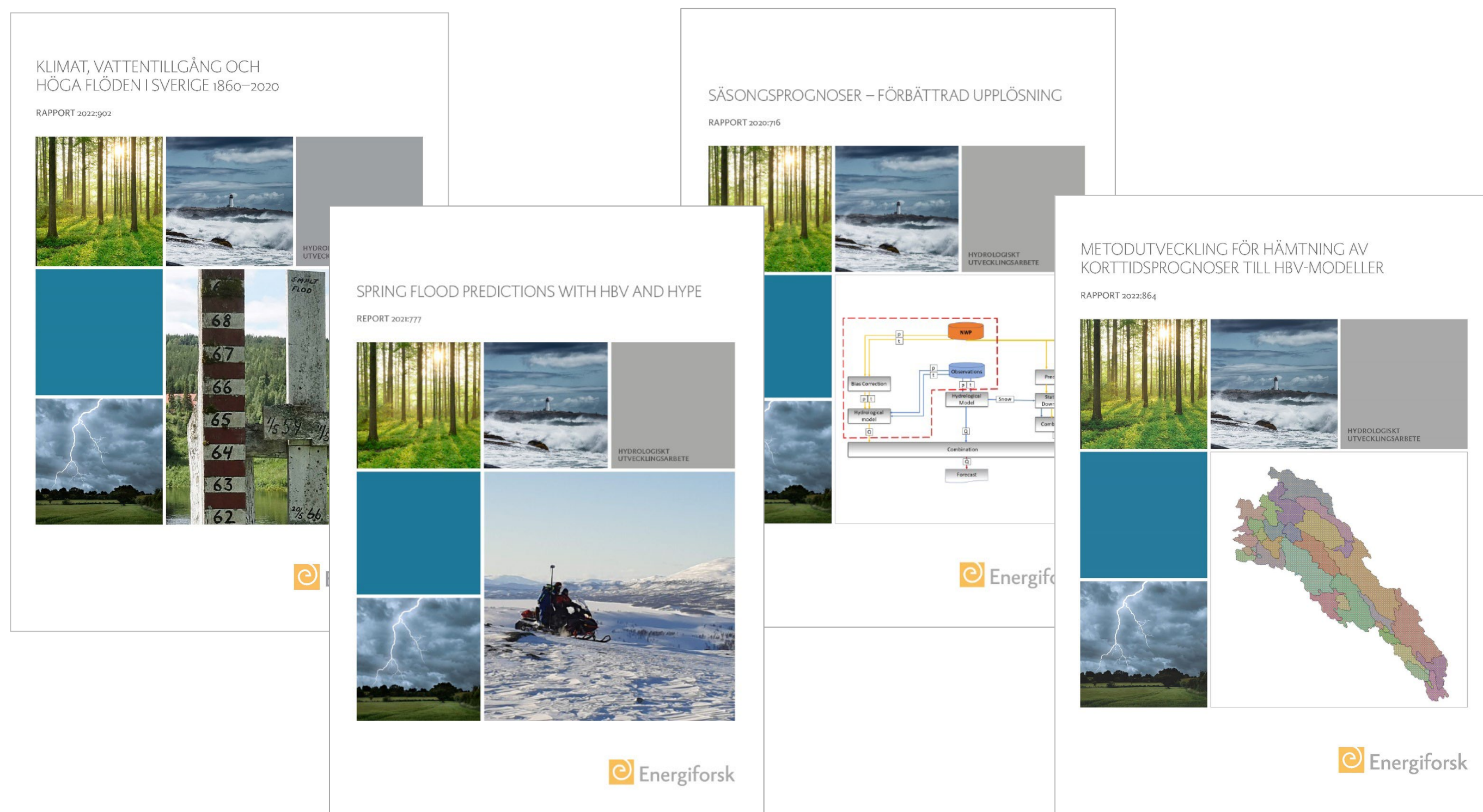
There is increasing uncertainty regarding how representative historical data will be in a changing climate. Simultaneously, climate scenarios produced to forecast and plan for possible future flows result in a wide range of possible outcomes. It is still unclear how to manage these uncertainties in risk management and production plans.

Design flood & dam safety

Hydrological inflow forecasts are of great importance for the interaction in a river when dealing with high flows, which has a direct impact on maintaining dam safety.



Some of Our Recent Publications



Meeting Places and Knowledge Dissemination

An important part of our activities are directed towards knowledge dissemination mainly through projects, conferences and courses. Every year, HUVA hosts events and meetings aimed at promoting knowledge exchange and learning experiences for both senior and junior personnel from, among others, power producing companies or public institutions.

Funding Opportunities

We are currently wrapping up the last projects of the ongoing programme period and are actively discussing the research and development needs to be addressed within the 2024-2026 programme period.

A research fund of 2.4 MKR is available for the upcoming HUVA programme period. Any organisation or institution that has project proposals in line with the HUVA programme description, is welcome to apply for funding.

For more information about funding opportunities within the HUVA programme you are more than welcome to get in touch with us. You can find more information about the programme and contact information via the QR-code below.

Learn more and access our research at energiforsk.se

