Dutch national rainfall radar project: a unique corporation

Hanneke Schuurmans (1), Jan Maarten Verbree (2), Hidde Leijnse (3), Klaas-Jan van Heeringen (4), Remko Uijlenhoet (5), Mark Bierkens (6), Nick van de Giesen (7), Jan Gooijer (8), and Gert van den Houten (9)


Since January 2013 Dutch water managers have access to innovative high-quality rainfall data. This product is innovative because of the following reasons. (i) The product is developed in a ‘golden triangle’ construction – corporation between government, business and research institutes. (ii) Second the rainfall products are developed according to the open-source GPL license.

The initiative comes from a group of water boards in the Netherlands that joined their forces to fund the development of a new rainfall product. Not only data from Dutch radar stations (as is currently done by the Dutch meteorological organization KNMI) is used but also data from radars in Germany and Belgium. After a radar composite is made, it is adjusted according to data from raingauges (ground truth). This results in 9 different rainfall products that give for each moment the best rainfall data.

This data will be used, depending on the end-user for several applications: (i) forecasts: input for flood early warning systems, (ii) water system analysis: hydrological model input, (iii) optimization: real time control and (iv) investigation of incidents: in case of flooding, who’s responsible. The latter is mainly insight in the return period of heavy rainfall events.

More info (in Dutch): www.nationaleregenradar.nl