



Customized Mobile Apps: Improving data collection methods in large-scale field works in Finnish Lapland

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Since the 1990s, a huge amount of data related to the groundwater and soil has been collected in several regional projects in Finland. EU –funded project “The coordination of groundwater protection and aggregates industry in Finnish Lapland, phase II” started in July 2016 and it covers the last unstudied areas in these projects in Finland. Project is carried out by Geological Survey of Finland (GTK), University of Oulu and Finnish Environment Institute and the main topic is to consolidate the groundwater protection and extractable use of soil resource in Lapland area. As earlier, several kinds of studies are also carried out throughout this three-year research and development project. These include e.g. drilling with setting up of groundwater observation wells, GPR-survey and many kinds of point-type observations, like sampling and general mapping on the field.

Due to size of a study area (over 80 000 km², about one quarter of a total area of Finland), improvement of the field work methods has become essential. To the general observation on the field, GTK has developed a specific mobile applications for Android –devices. With these Apps, data can be easily collected for example from a certain groundwater area and then uploaded directly to the GTK’s database. Collected information may include sampling data, photos, layer observations, groundwater data etc. and it is all linked to the current GPS-location. New data is also easily available for post-processing.

In this project the benefits of these applications will be field-tested and e.g. ergonomics, economy and usability in general will be taken account and related to the other data collecting methods, like working with heavy fieldwork laptops. Although these Apps are designed for usage in GTK’s projects, they are free to download from Google Play for anyone interested.

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