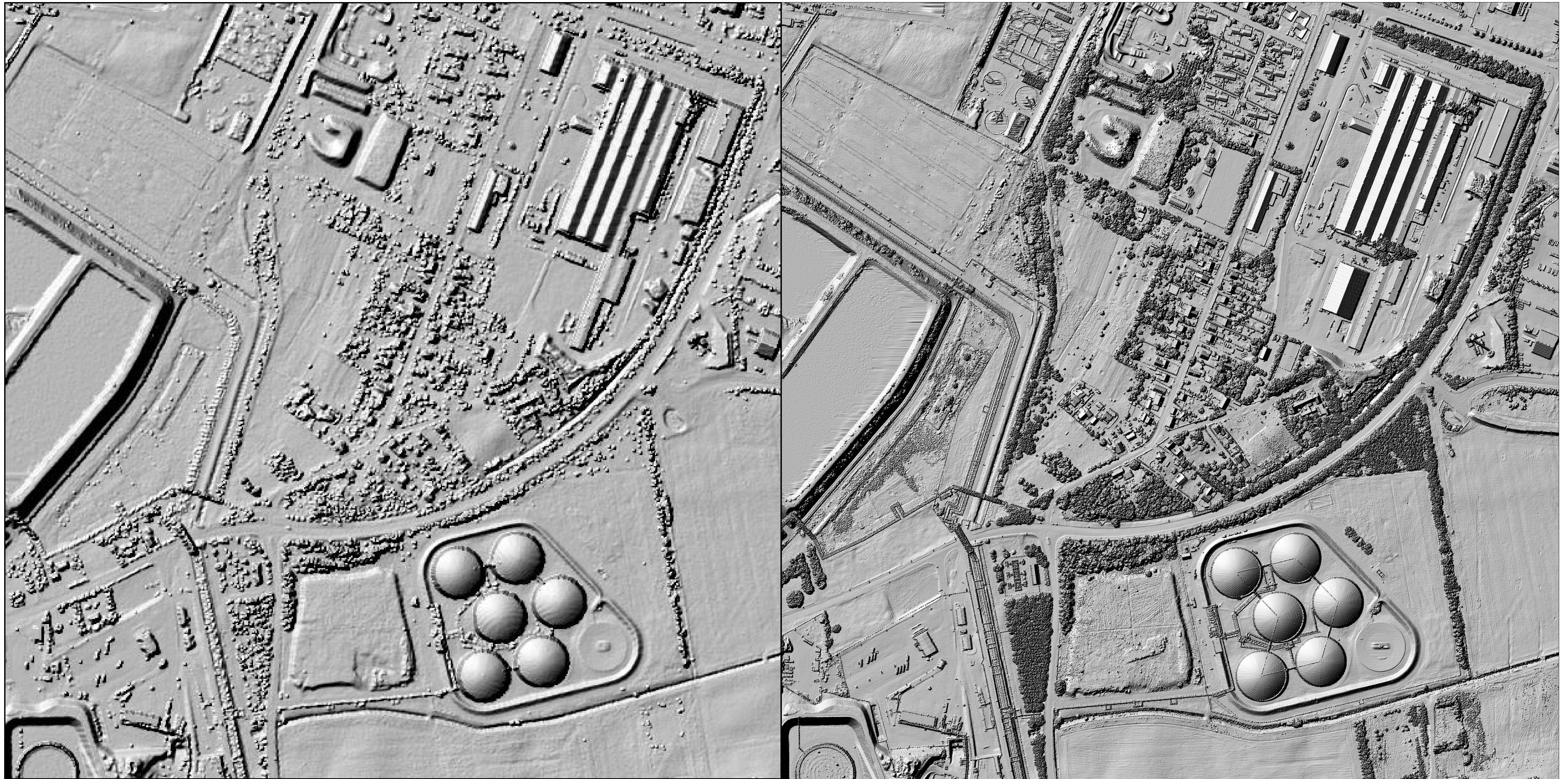


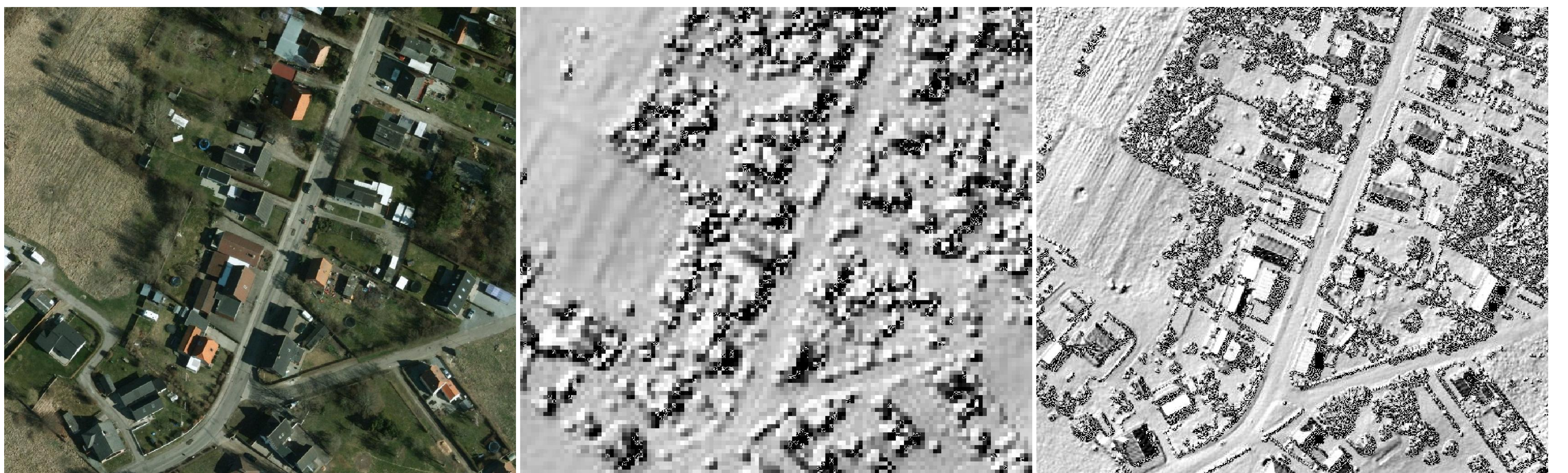
The updated Danish Elevation Model — from procurement to distribution

Gitte C. Rosenkranz, Thomas Knudsen, Simon L. Kokkendorff, Thorbjørn K. Nielsen, Andrew C. Flatman, Kristian Keller
Danish Geodata Agency

A significant improvement: 0.5 point/m² (2007) vs. 4–5 points/m² (2014)



Detail: Residential neighbourhood. From hard-to-decipher (2007), to clear-as-daylight (2014)



Setting



The test site comprises a 1 km × 1 km tile with high spatial diversity, situated near the harbour of Kalundborg (northwestern part of Zealand). The land use/land cover includes heavy industry, petrochemical processing, residential areas and patches of high and low vegetation.

A new Danish elevation model

Case

In the time frame spring 2014–spring 2015 (i.e. 3 flight seasons), data are being collected for an updated version of the Danish national elevation model (DK-DEM).

The tender for the data collection ended with awarding the contract to a consortium consisting of the Dutch *Aerodata Nederland* and the Austrian *Airborne Technologies*.

The first flights were carried out as planned in the spring of 2014. They covered the islands Zealand, Funen, Langeland, Lolland, Falster and their surrounding smaller islands.

An extensive quality control effort is currently under way (see separate poster by Knudsen et al.), but as is evident from the examples above, the improvement in data density alone yields a highly visible difference with respect to the original DK-DEM, which was based on data recorded in the time frame 2005–2007.

Framework

DK-DEM, is part of the Danish Basic Data Program, a program contributing to the streamlining of administration/planning by providing free, high quality data to authorities, individuals, and private businesses.

DK-DEM has a large number of potential applications. The best known are climate change adaptations for local and regional municipalities. Also the Danish Coastal Authority's proactive protection of the Danish coastline benefits from an up-to-date elevation model.

DK-DEM has also found use by archaeologists, for detection and mapping of previously unknown cultural heritage.



Danish Ministry of the Environment
Danish Geodata Agency