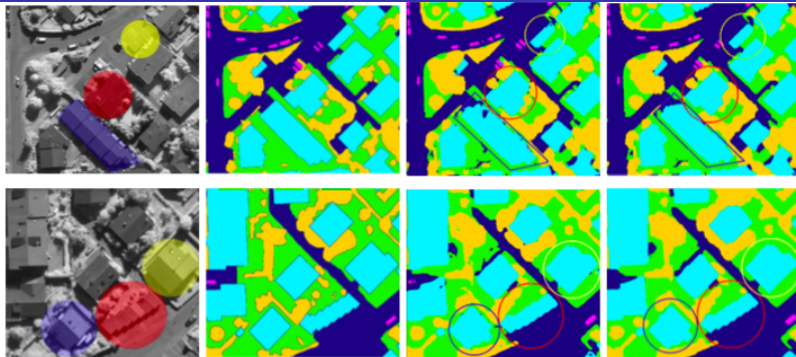# Semantic Segmentation of Aerial Images with an Ensemble of CNNs

D. Marmanis, J. D. Wegner, S. Galliani, K. Schindler, M. Datcu, U, Stilla (APRS 2016)

- ▶ Presents an end-to-end semantic segmentation deep learning approach of very high resolution aerial images

- ▶ Contributions:
    - ▶ Designs a Fully Convolution Network which takes as input intensity and range data
    - ▶ Converts early network layers into a pixelwise classification at full resolution with the help of aggressive deconvolution
    - ▶ Demonstrates that an ensemble of several networks achieves better results

- ▶ Evaluates on ISPRS semantic labeling benchmark