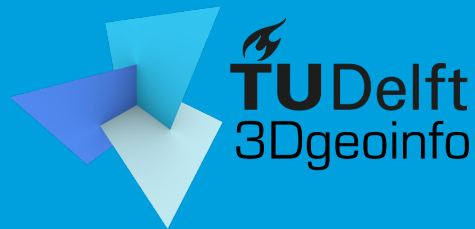
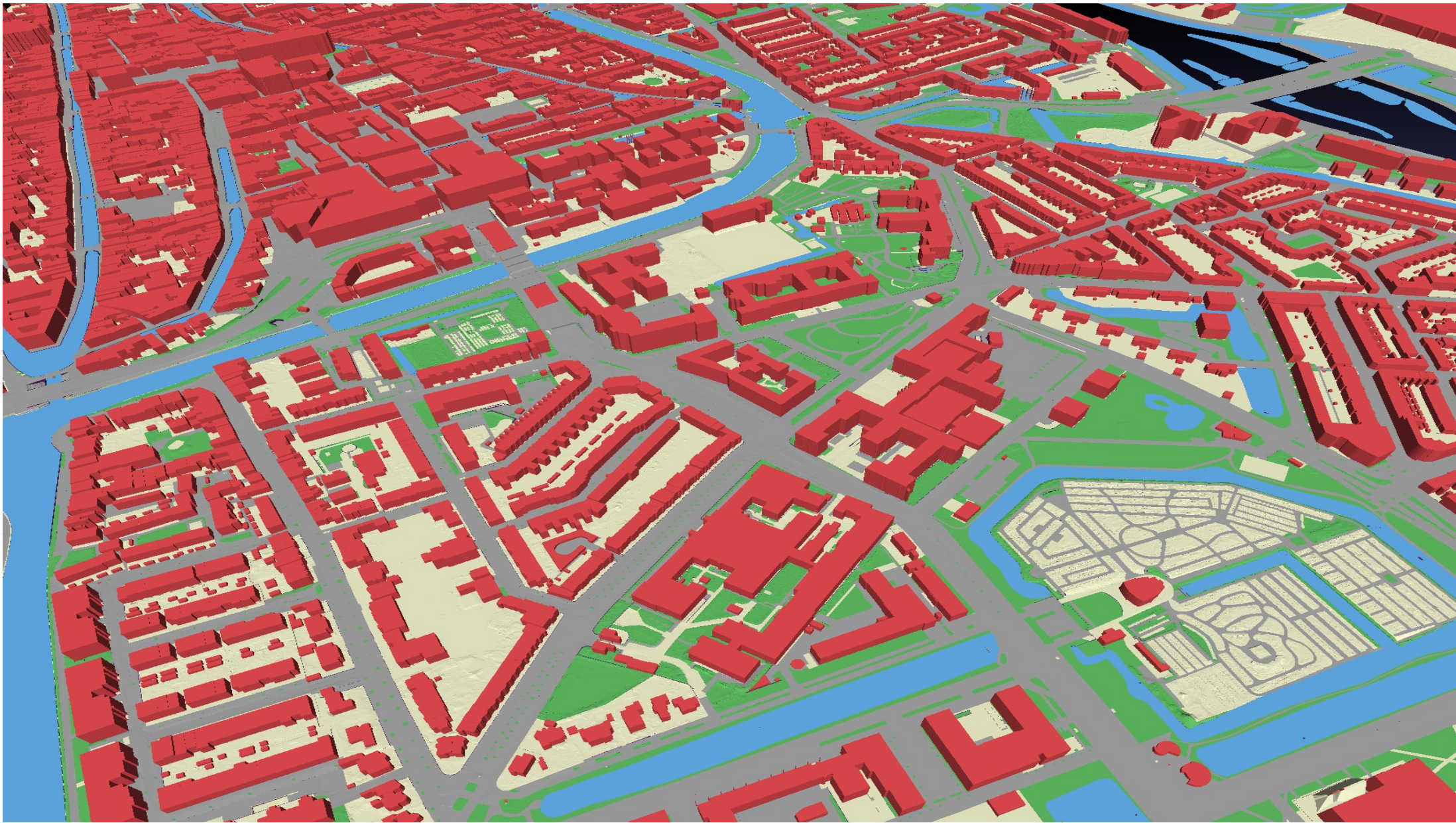


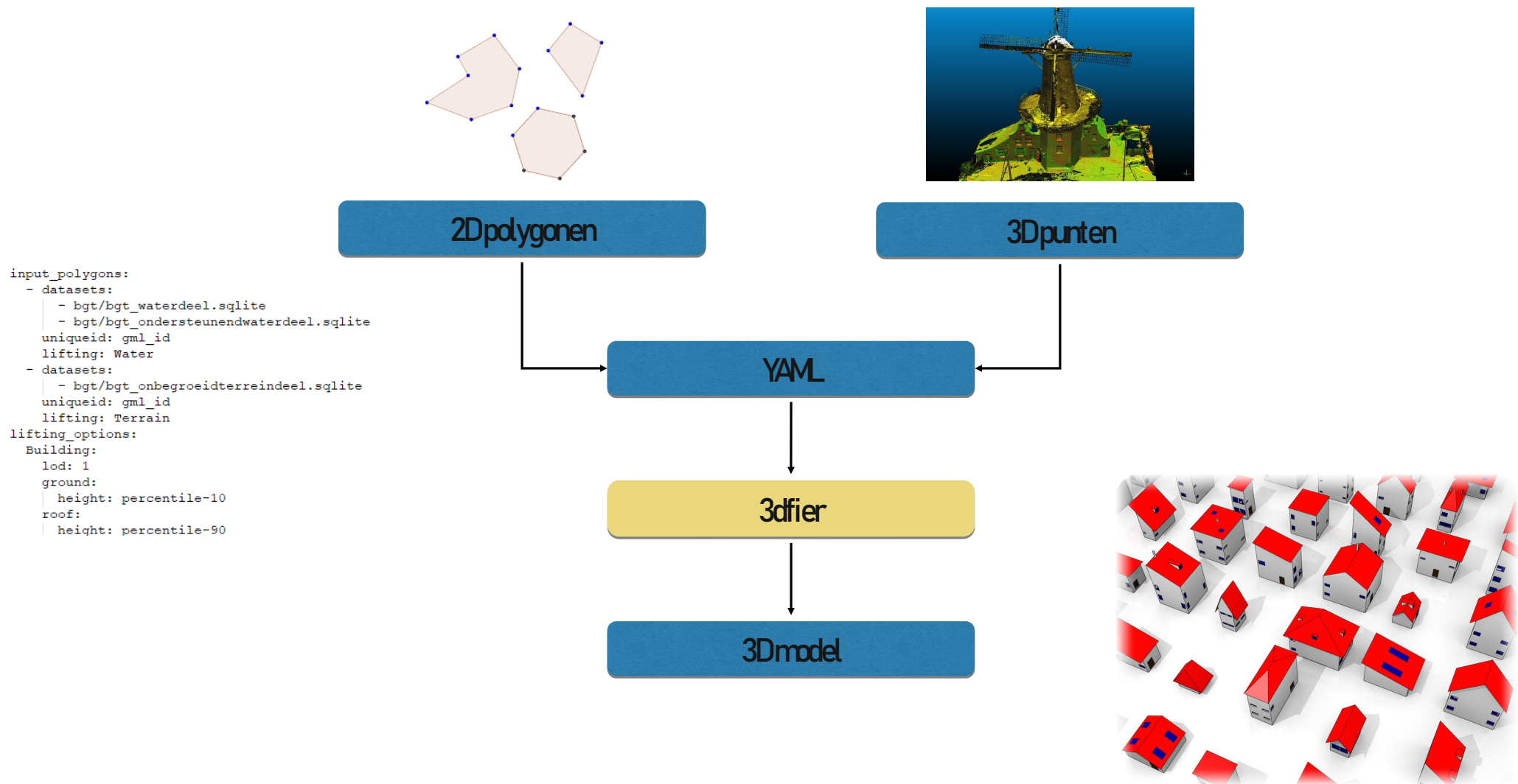
Automatisch reconstructie van steden met 3dfier

Tom Commandeur
FOSS4GNL
2018-07-11



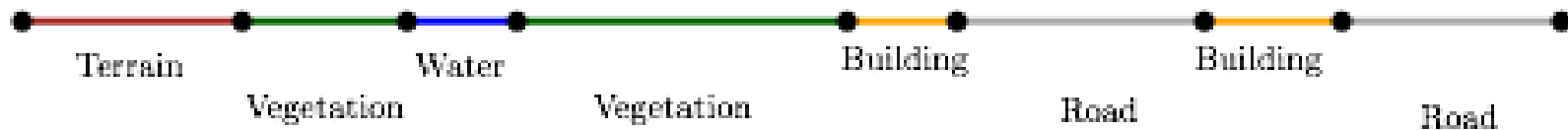


Dataflow





Input: elke 2D dataset (bijv. TOP10NL of BGT)

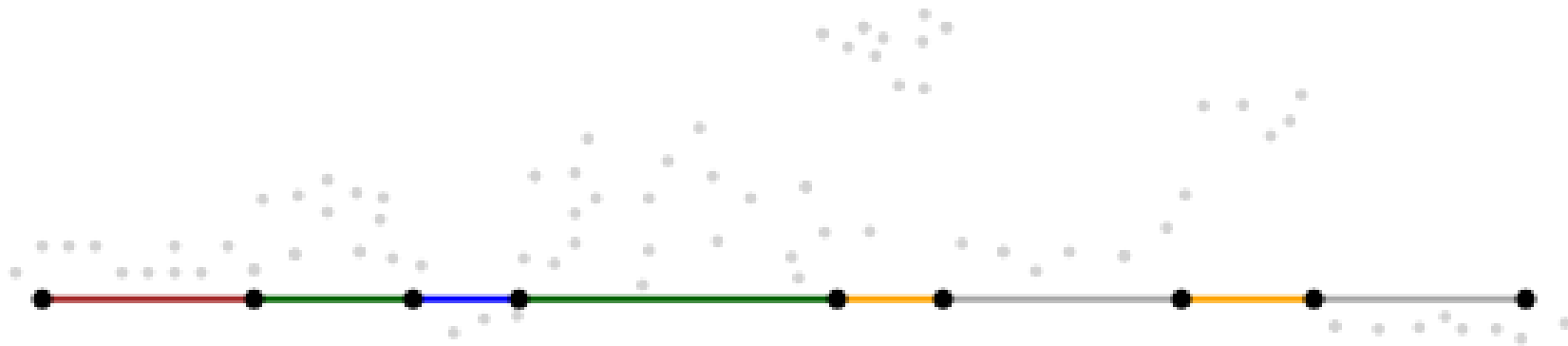


We voegen elk polygoon toe aan een klasse:

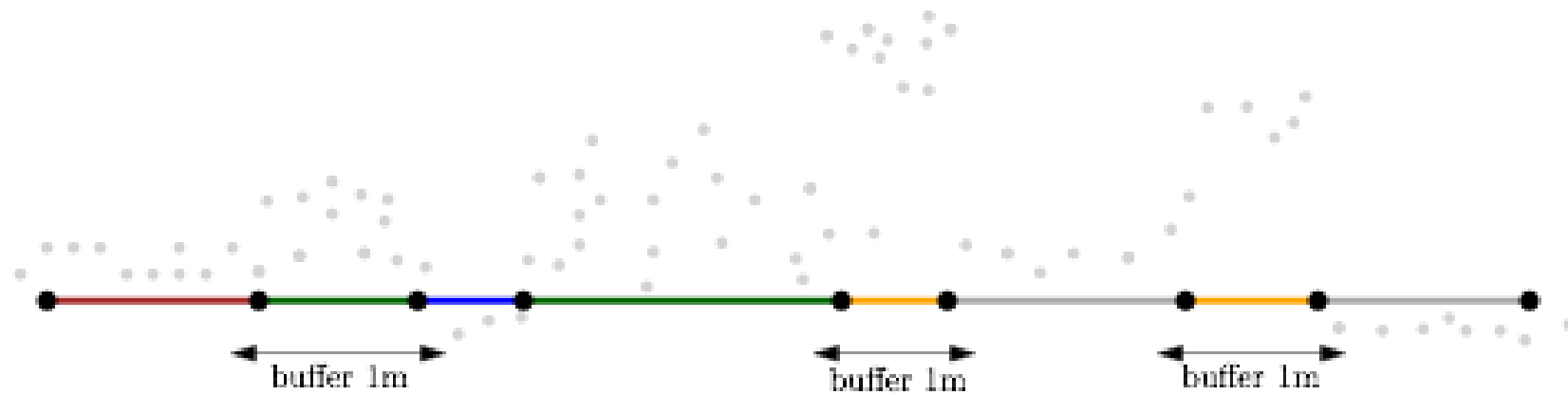
- 1. Building**
- 2. Water**
- 3. Road**
- 4. Vegetation**
- 5. Terrain**
- 6. Separation**
- 7. Bridge**



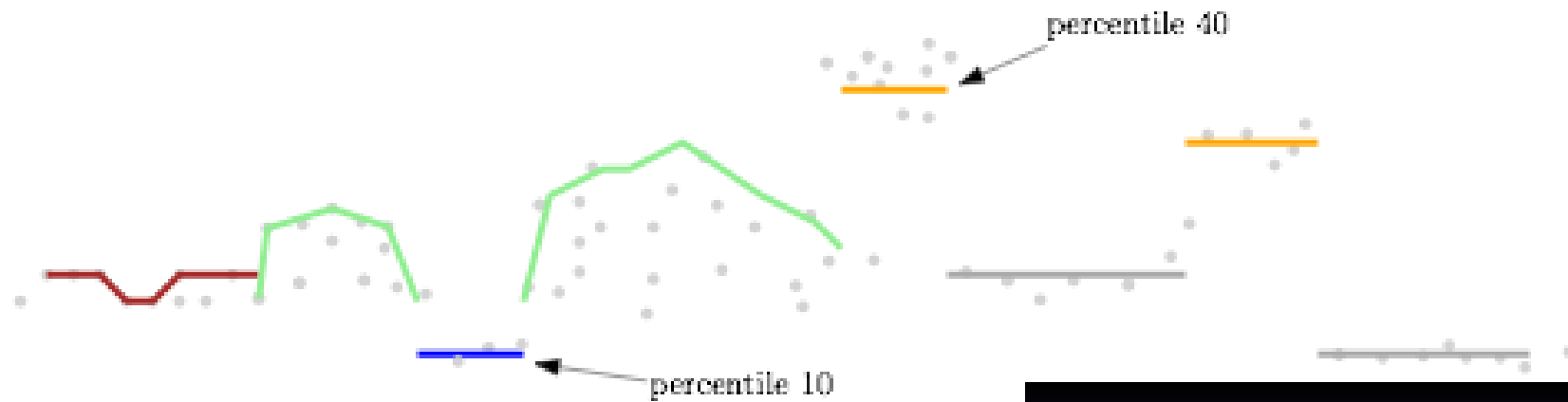
Elk LiDAR punt toewijzen aan polygonen



Elk LiDAR punt toewijzen aan polygoenen

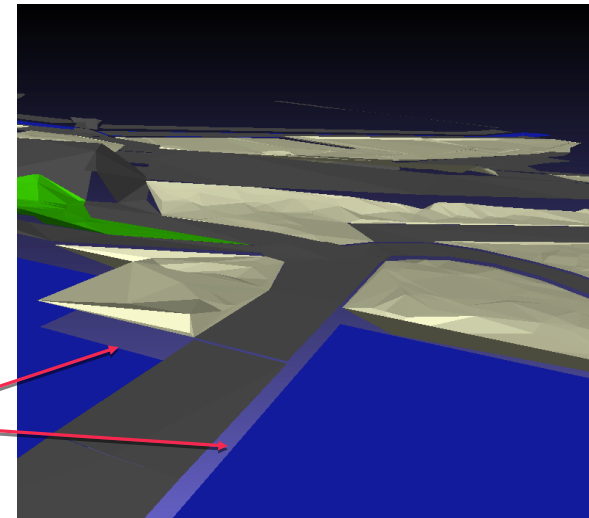


Ophogen van elk polygoon met simpele regels

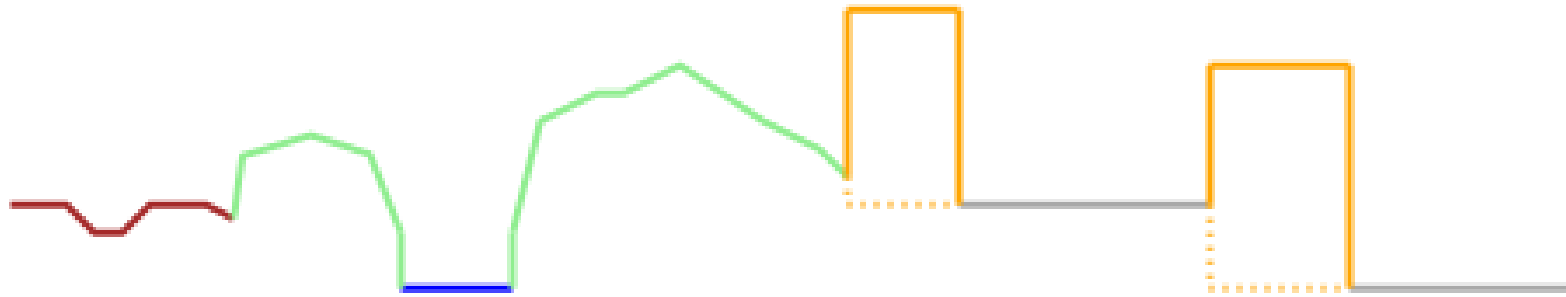


Terrein en vegetatie klassen hebben extra toegevoegde LiDAR punten, van andere klassen worden alleen de vertices opgehoogd

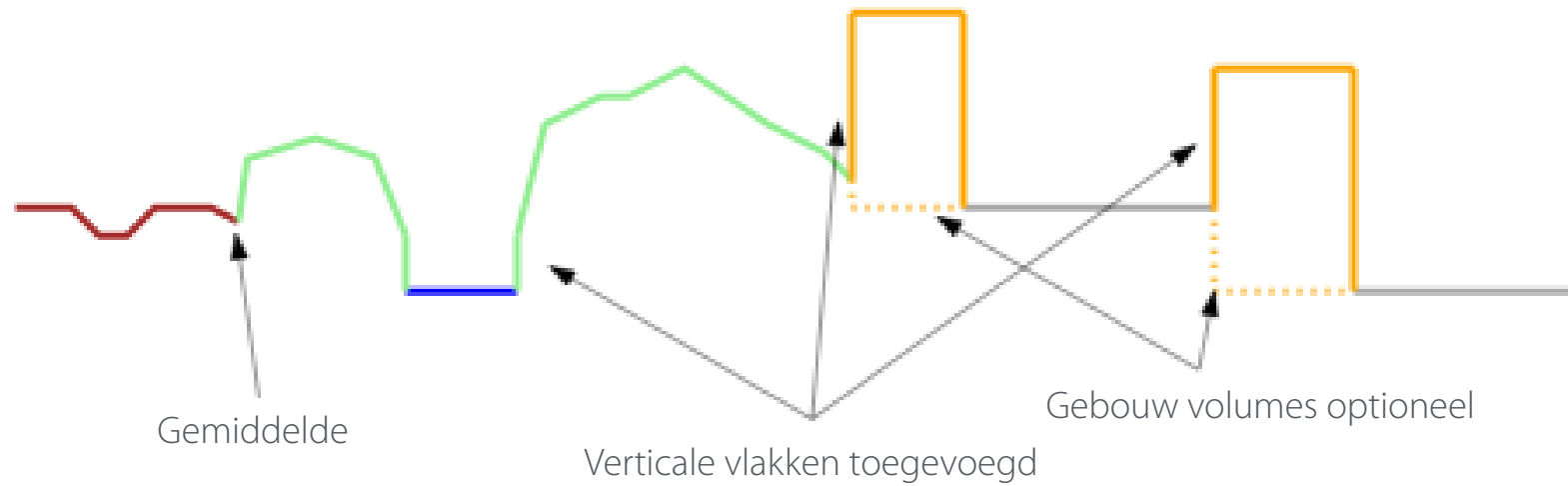
**gate
n**



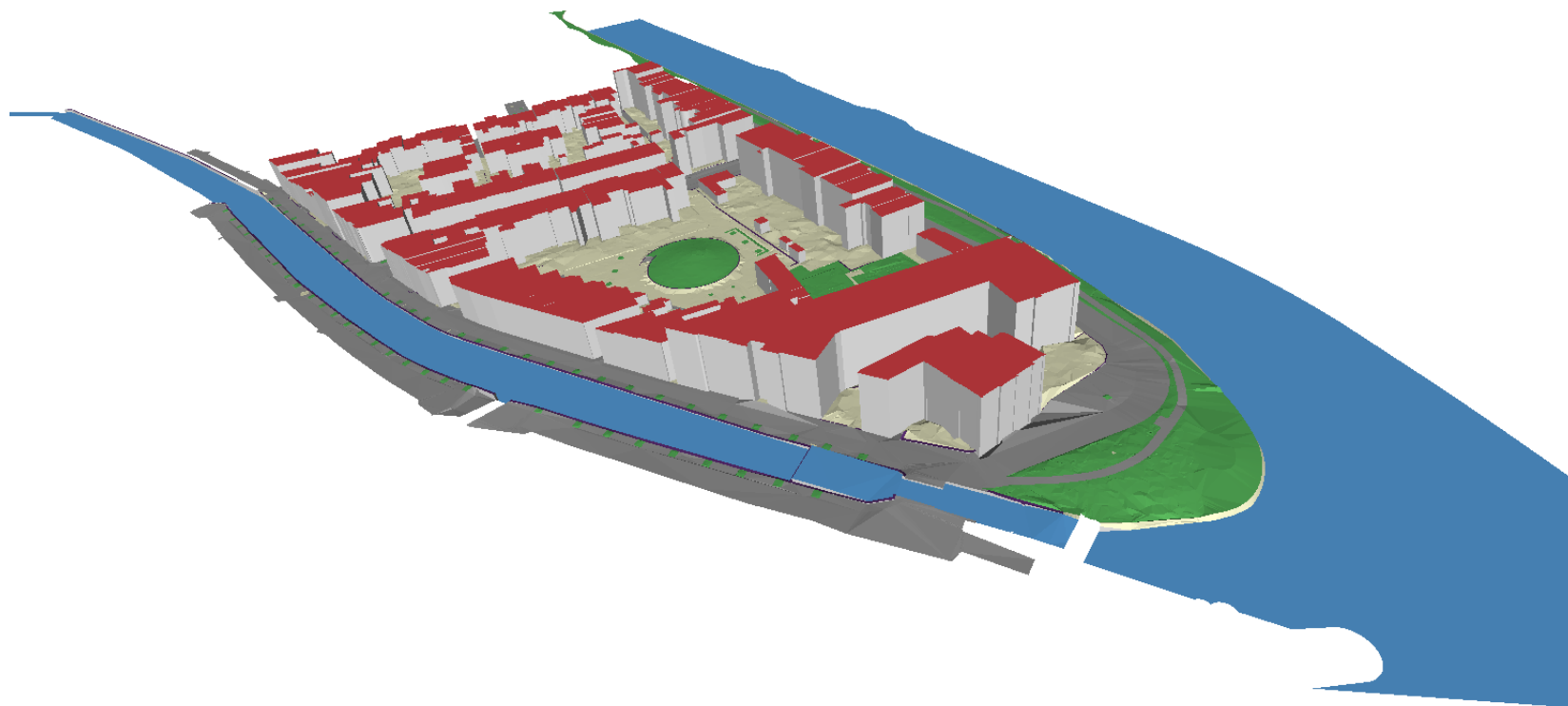
Stikken van aangrenzende polygonen



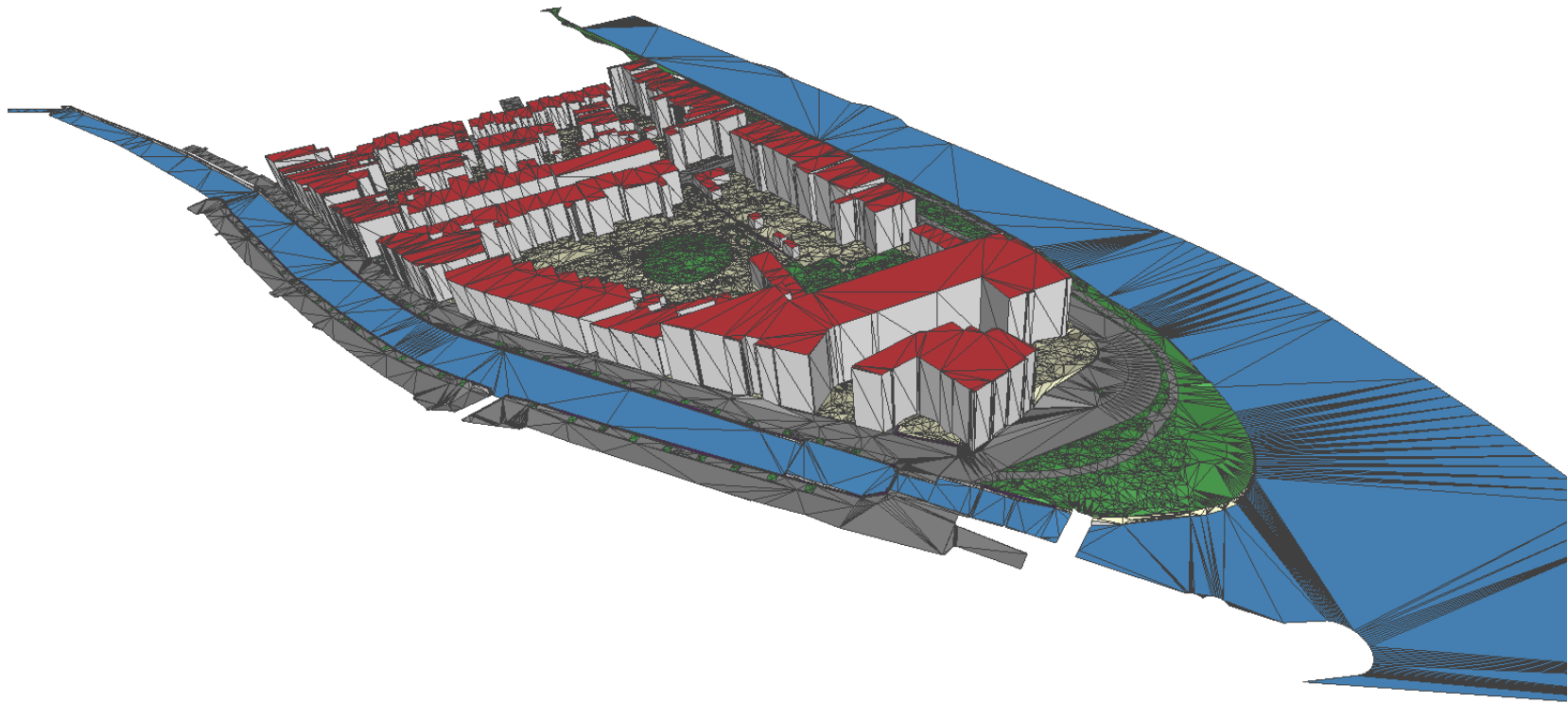
Stikken van aangrenzende polygonen



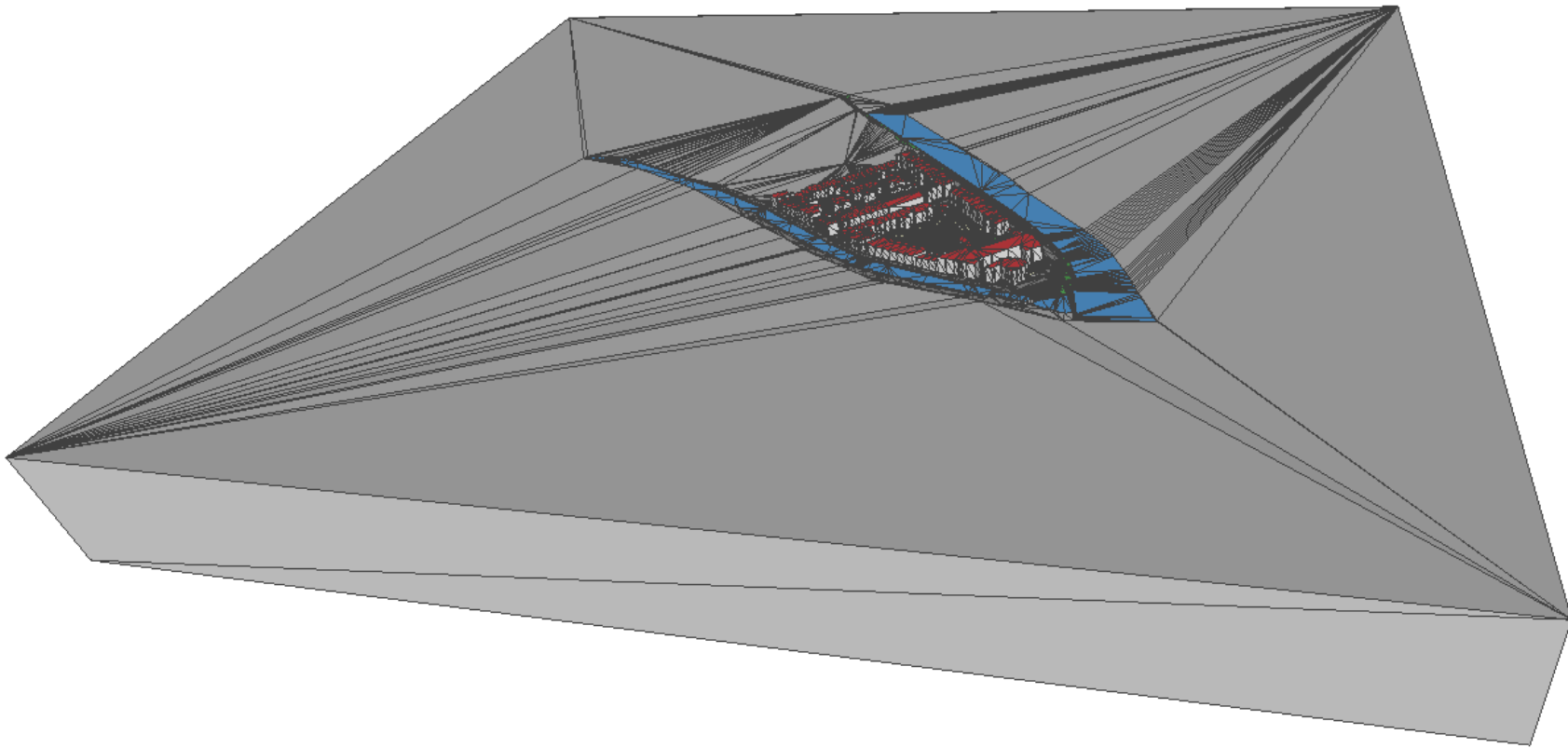
3D model



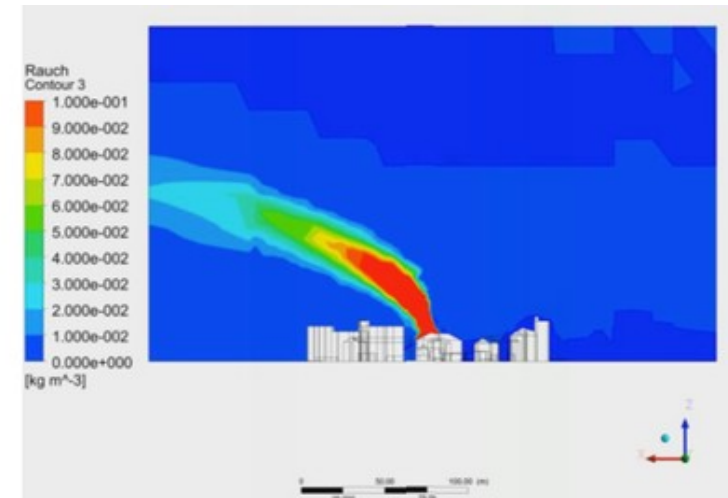
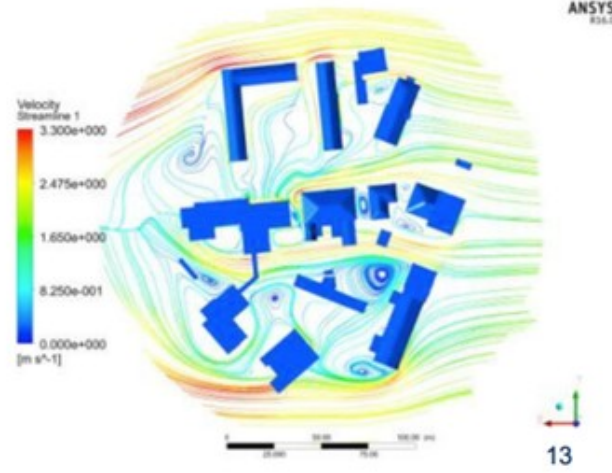
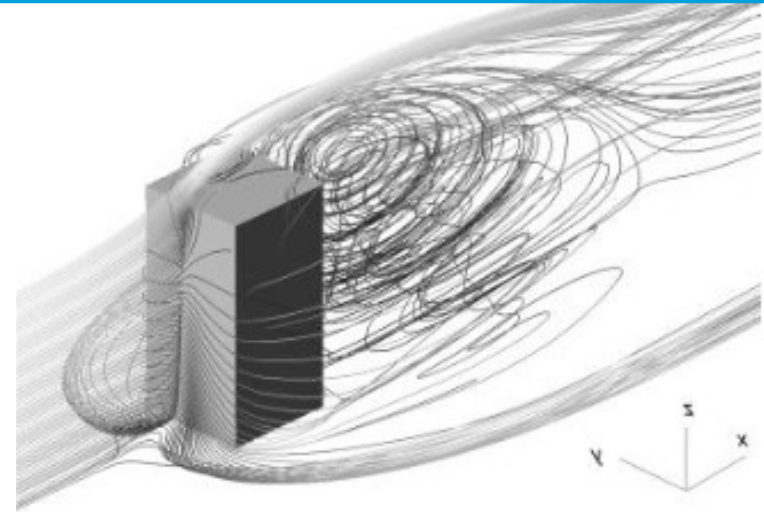
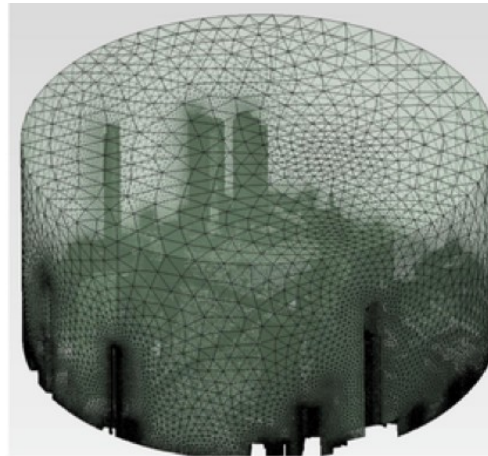
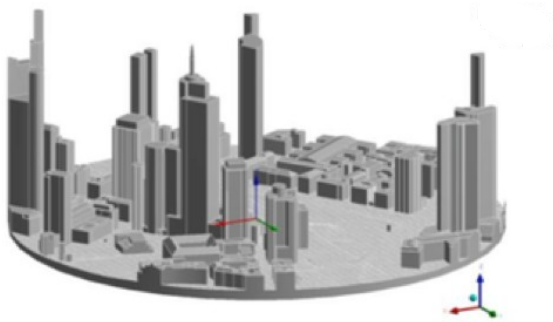
3D model triangulatie



3D model printen?



Direct klaar voor simulaties



Open standaarden

OB
J

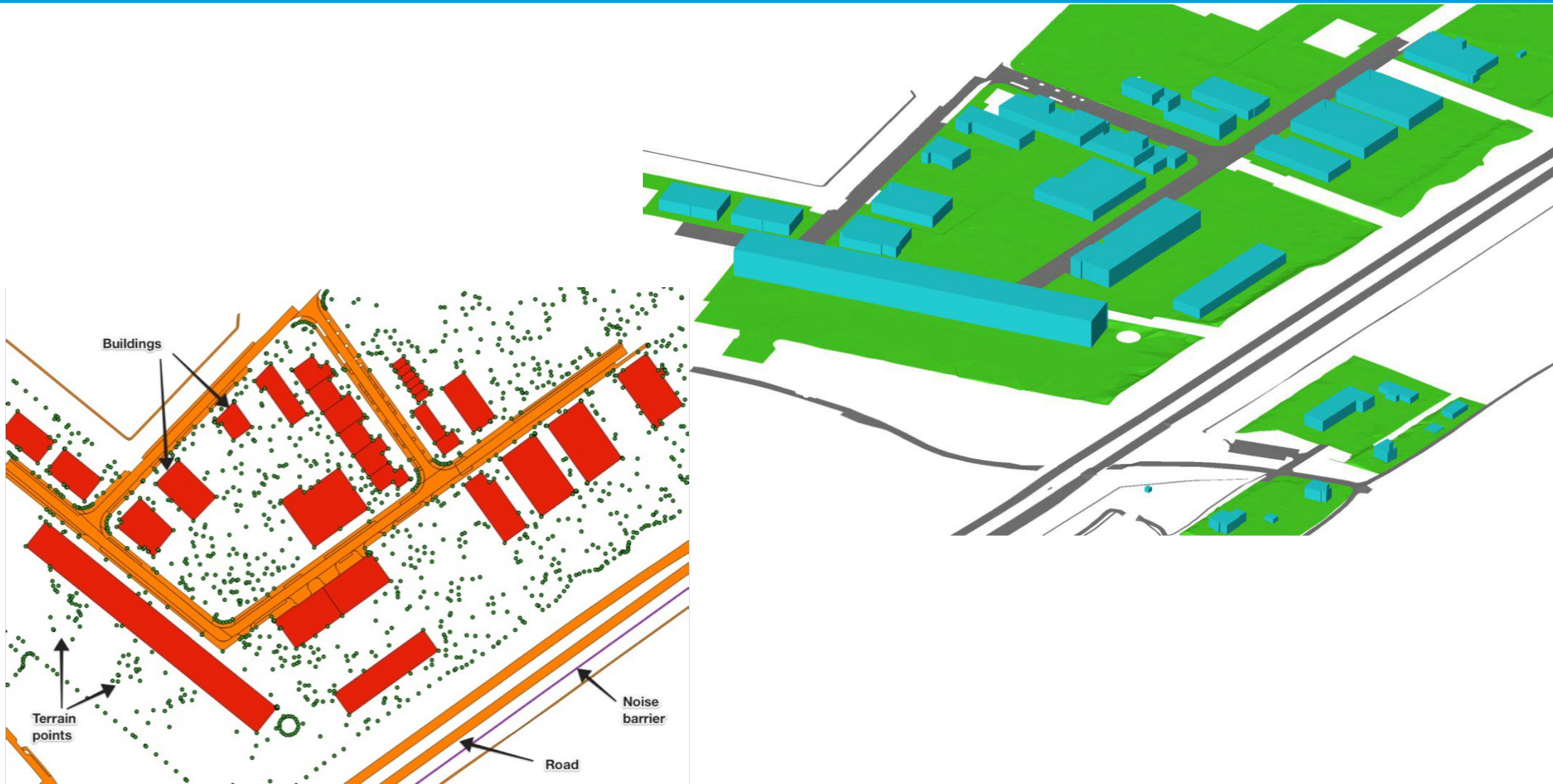


IMGe
o

CS
V



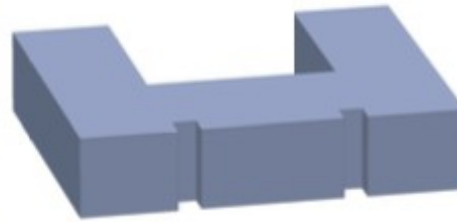
Geo-data voor geluidssimulaties



Toekomst LOD1.3



(a)



(b)



(c)

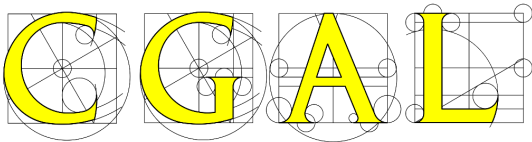
Gebruikte libraries



GDAL -> Polygonen lezen



Yaml-cpp - > Configuratie



CGAL -> Constrained Delaunay Triangulation

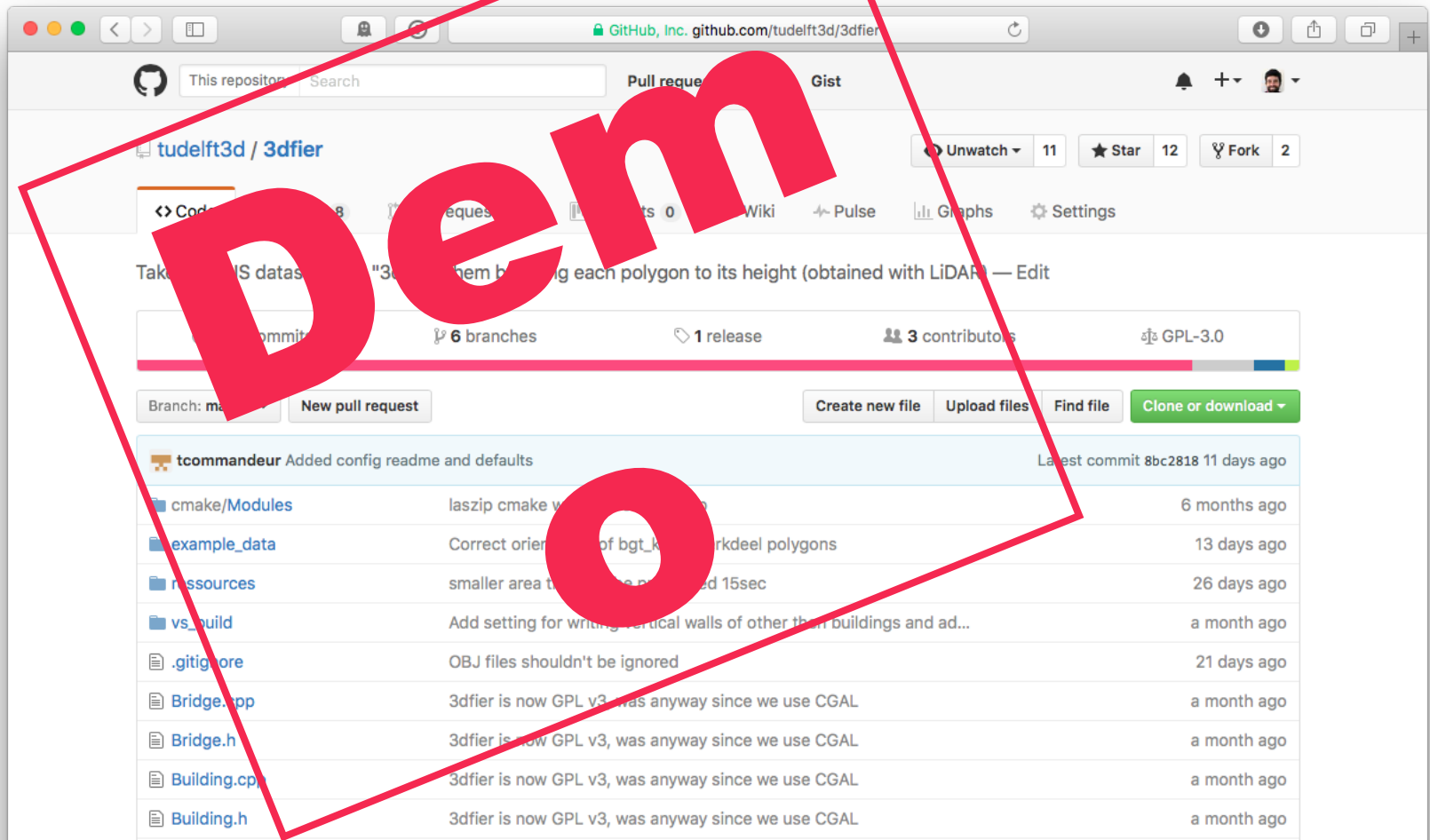


LibLas / LasZip -> Puntenwolken lezen



Boost.Geometry -> Geometrie berekeningen

3dfier is open-source
github.com/tudelft3d/3dfier



nank

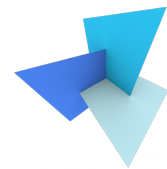
you.

thru

Tom Commandeur

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3d.bk.tudelft.nl



3D geoinformation
3dgeoinfo.bk.tudelft.nl

