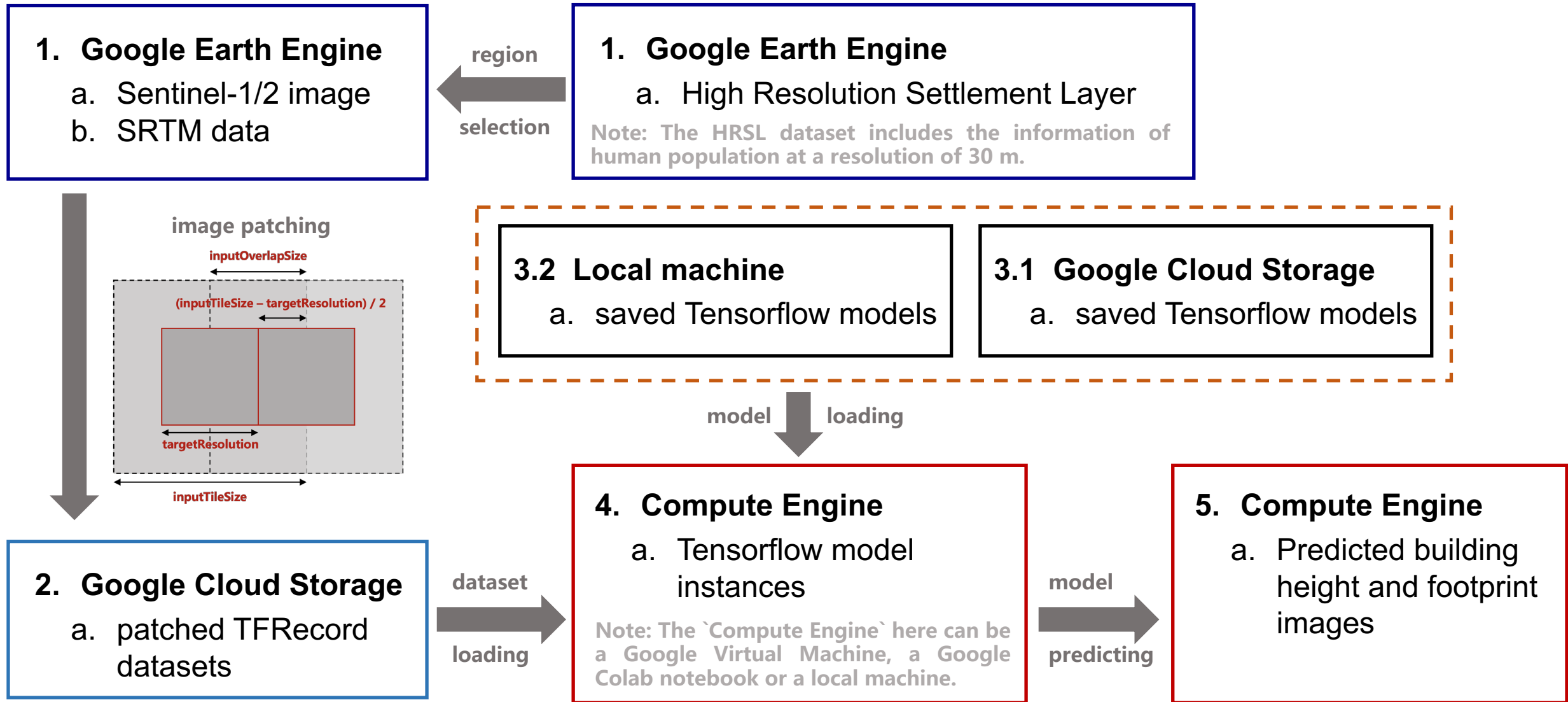


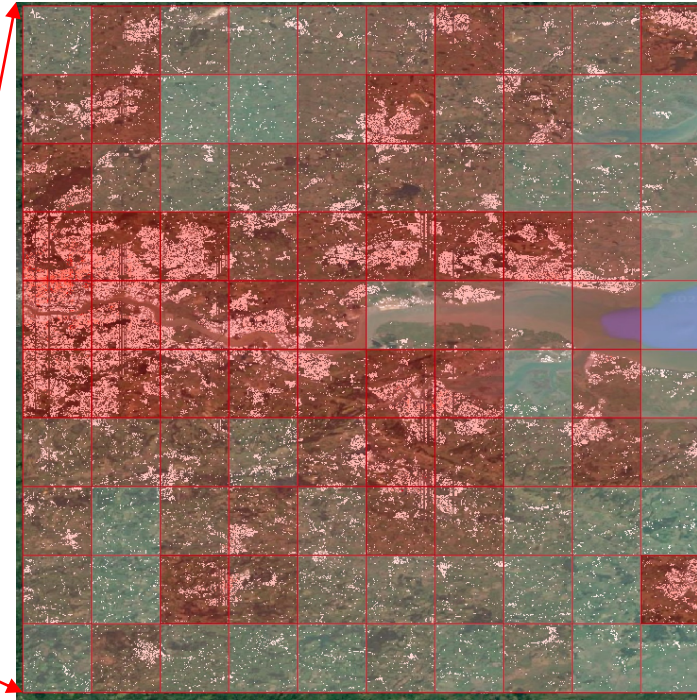
➤ Workflow for global 3D building information mapping



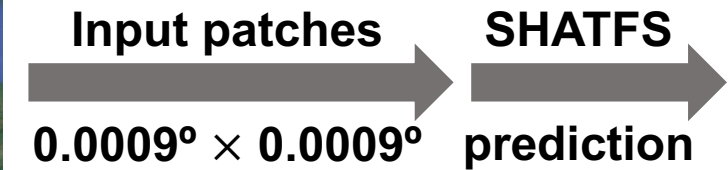
➤ Workflow for global 3D building information mapping



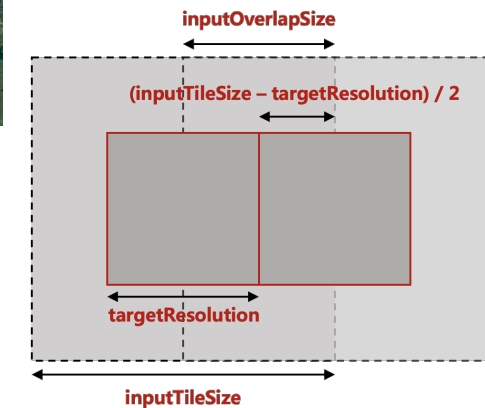
Regions of Interests
 $0.9^\circ \times 0.9^\circ$



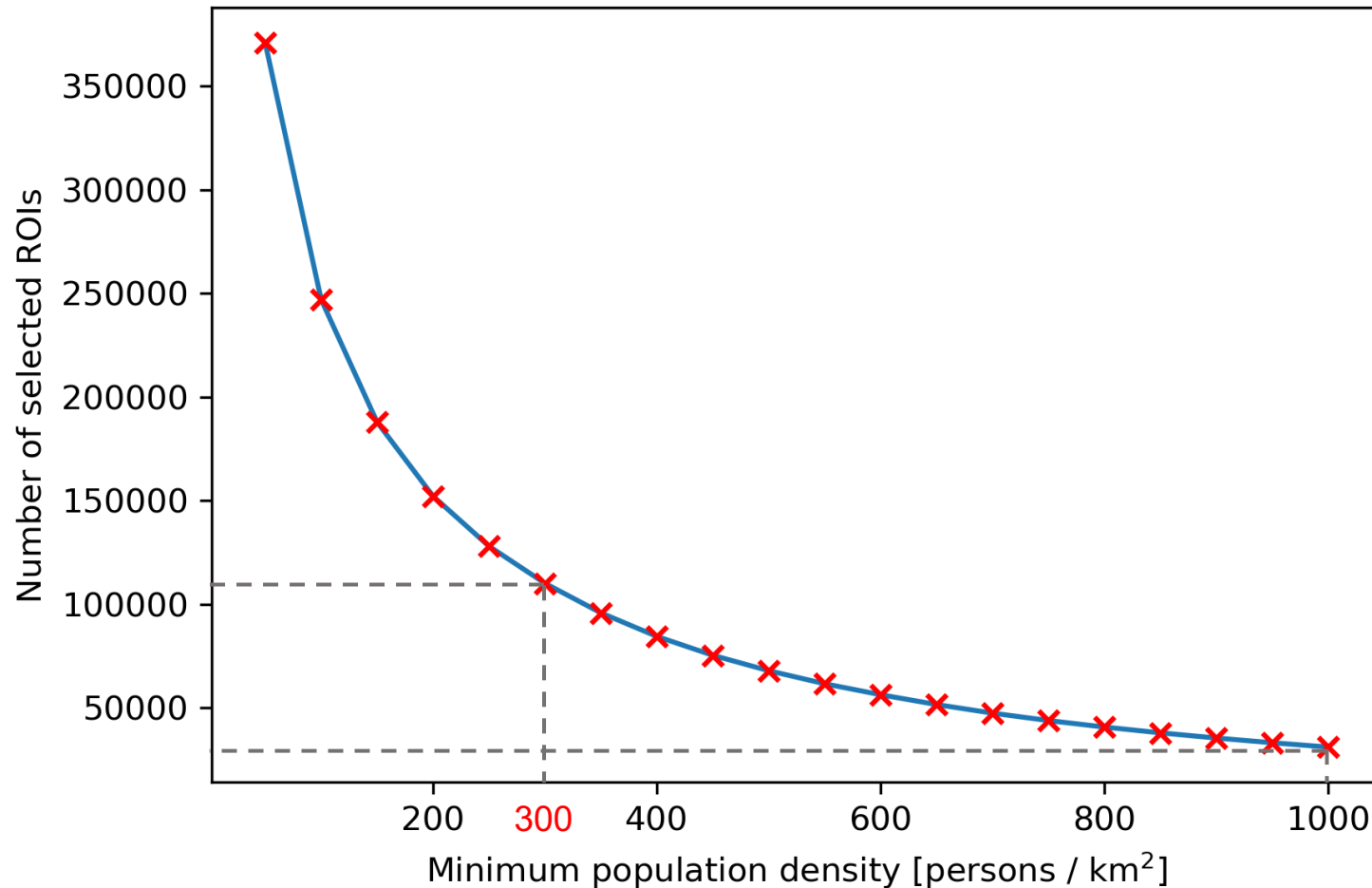
Sample areas
 $0.09^\circ \times 0.09^\circ$



$100 \times 100 = 10000$ patches
for every sample area



➤ Workflow for global 3D building information mapping



- Test the time of CNN inference on UCL's Research Computing Service

- If we want to finish our task in one week, then we need:

~ 20 s / ROI

- 300 persons / km²: $\sim 10^5$ ROIs ($0.9^\circ \times 0.9^\circ$)
- 1000 persons / km²: $\sim 3 \times 10^4$ ROIs ($0.9^\circ \times 0.9^\circ$)

Reference population data: <https://sedac.ciesin.columbia.edu/data/set/gpw-v4-population-density-adjusted-to-2015-unwpp-country-totals-rev11>

