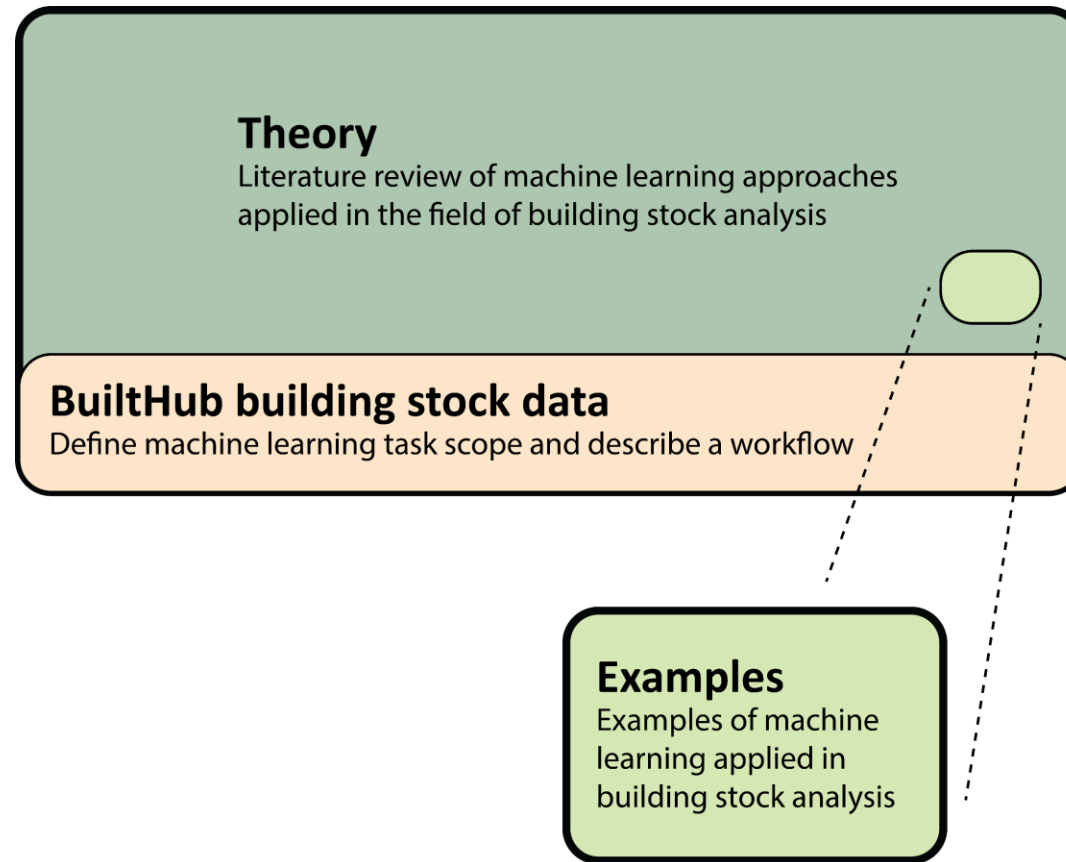


T4.4 Machine Learning methods for the BuiltHub platform

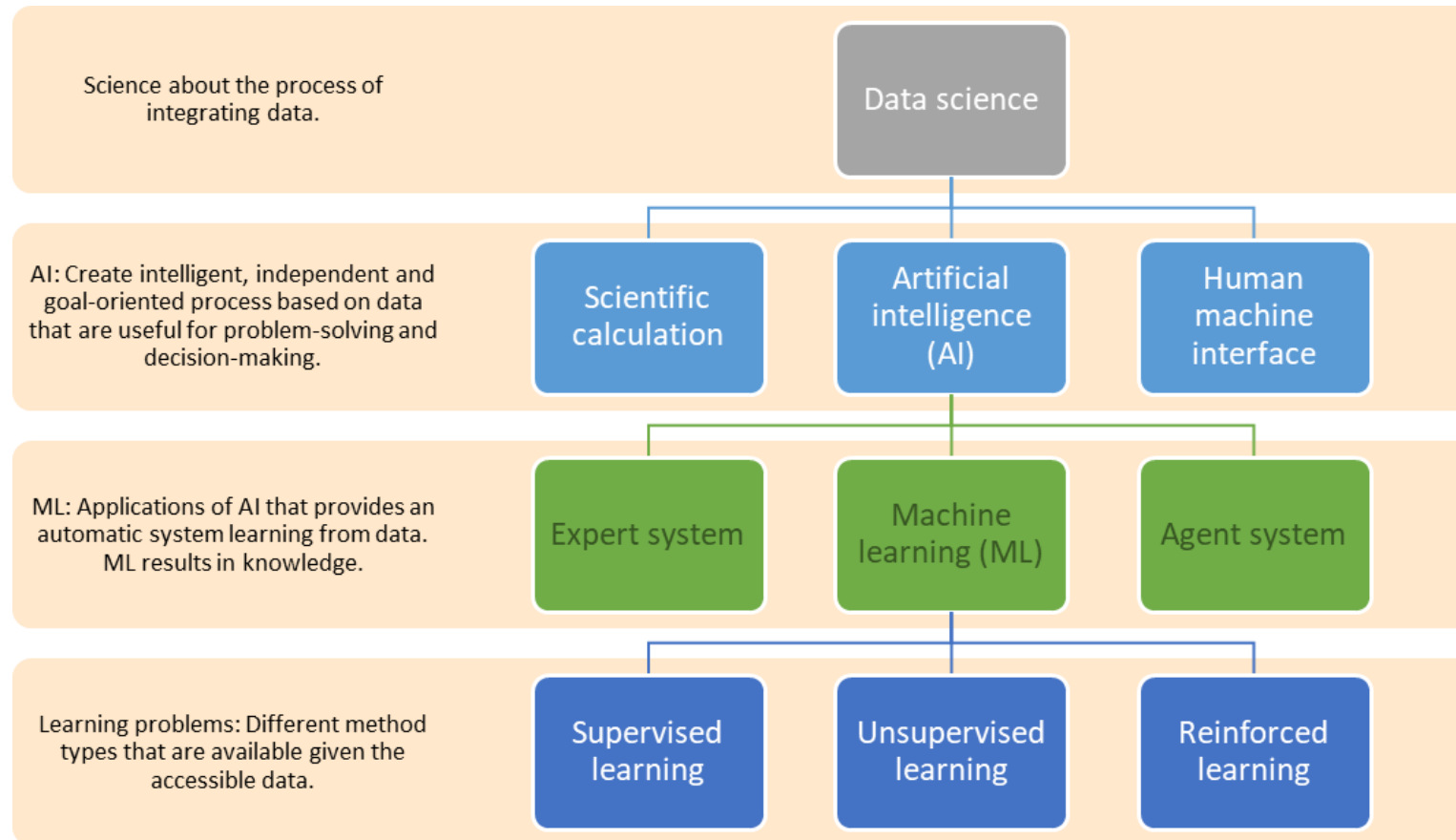


Machine Learning theory



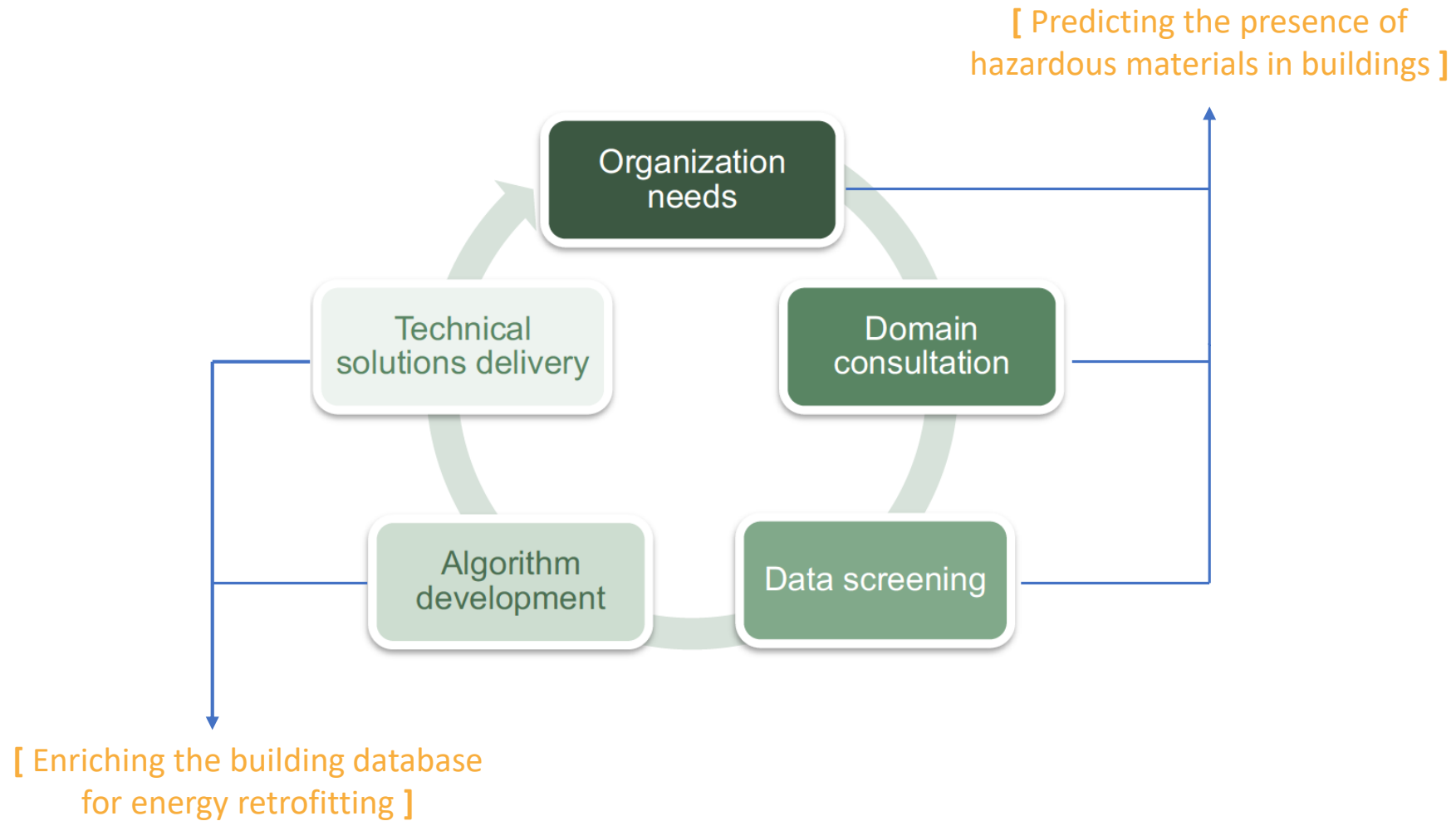


Machine Learning theory





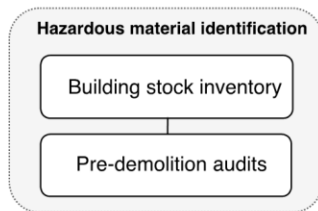
Developing an applied machine learning loop



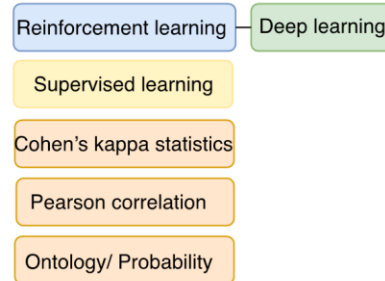


Example – predicting the presence of hazardous waste in the building stock

Hazardous material management



Analytical techniques



Data-driven applications



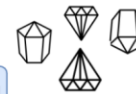
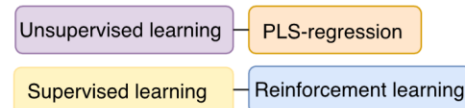
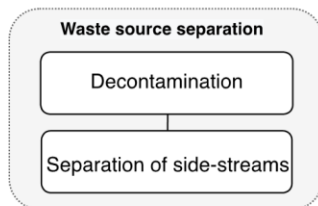
Remote sensing

- Identify asbestos-cement roofing
- Estimate asbestos-cement roofing



Statistics on reported data

- Identify the presence of asbestos-containing materials
- Assess the amount and cost of asbestos-containing materials
- Predict the presence of asbestos-containing materials



Hyperspectral imaging

- Separate asbestos-containing materials from CDW
- Develop a waste management system

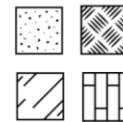
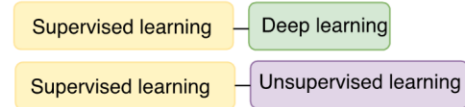
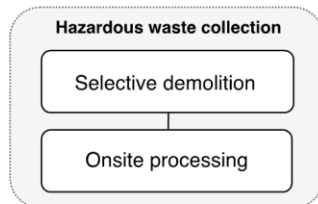
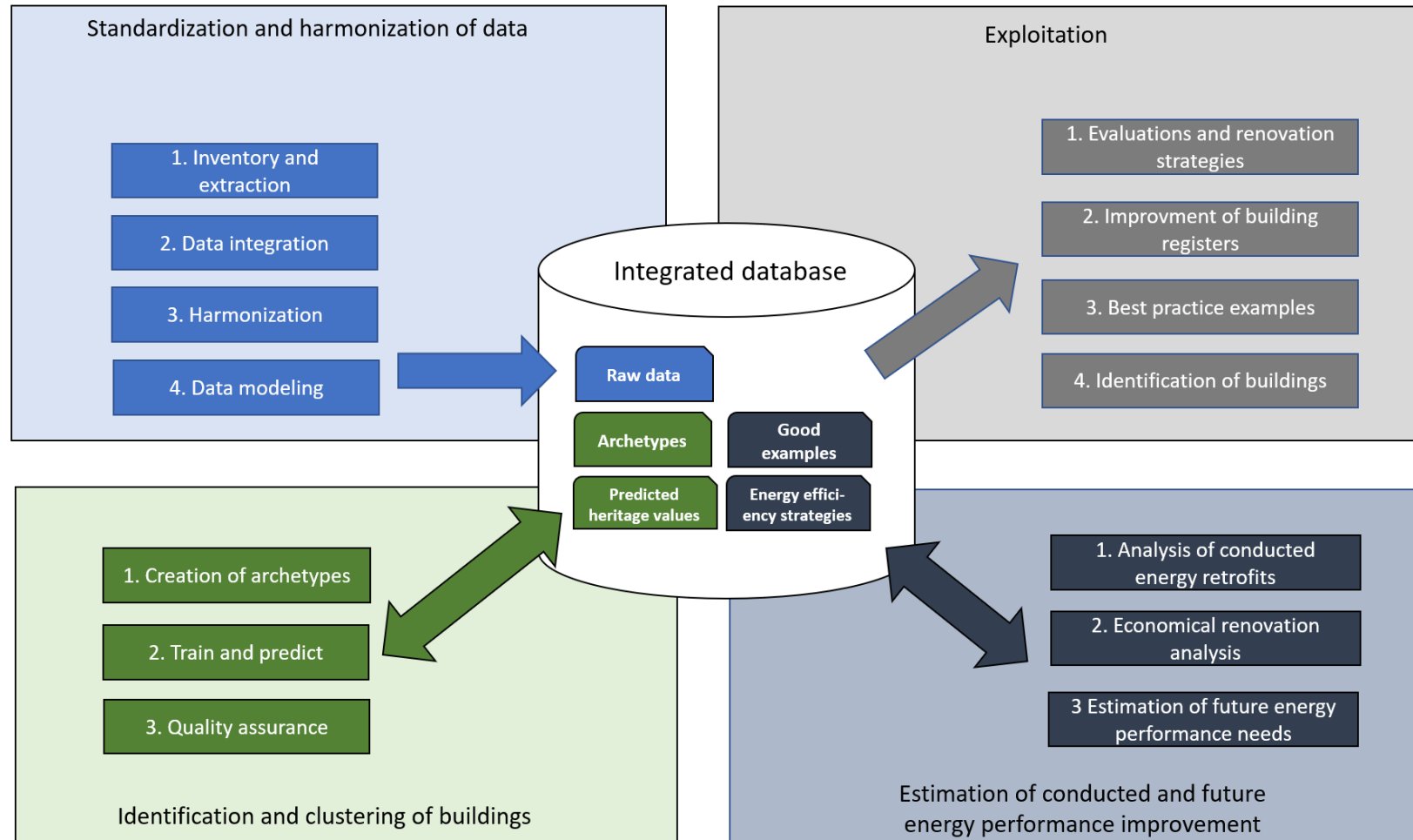


Image processing

- Detect construction material image
- Optical identification for CDW

Example - Prediction of cultural heritage values in relation to energy efficiency requirements

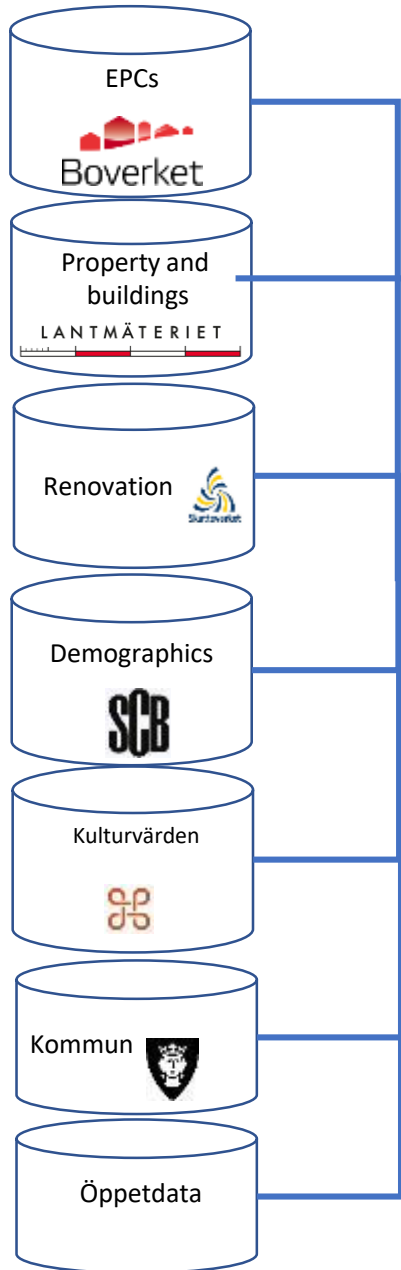




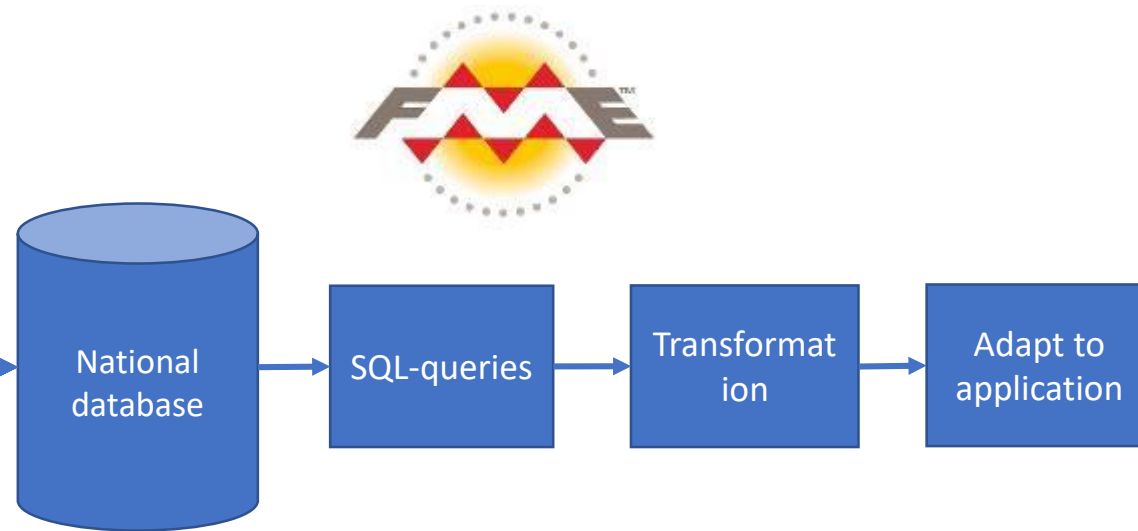
Metoder för att integrera bebyggelsedata för varsam och
hållbar energieffektivisering

RI.
SE

Extract

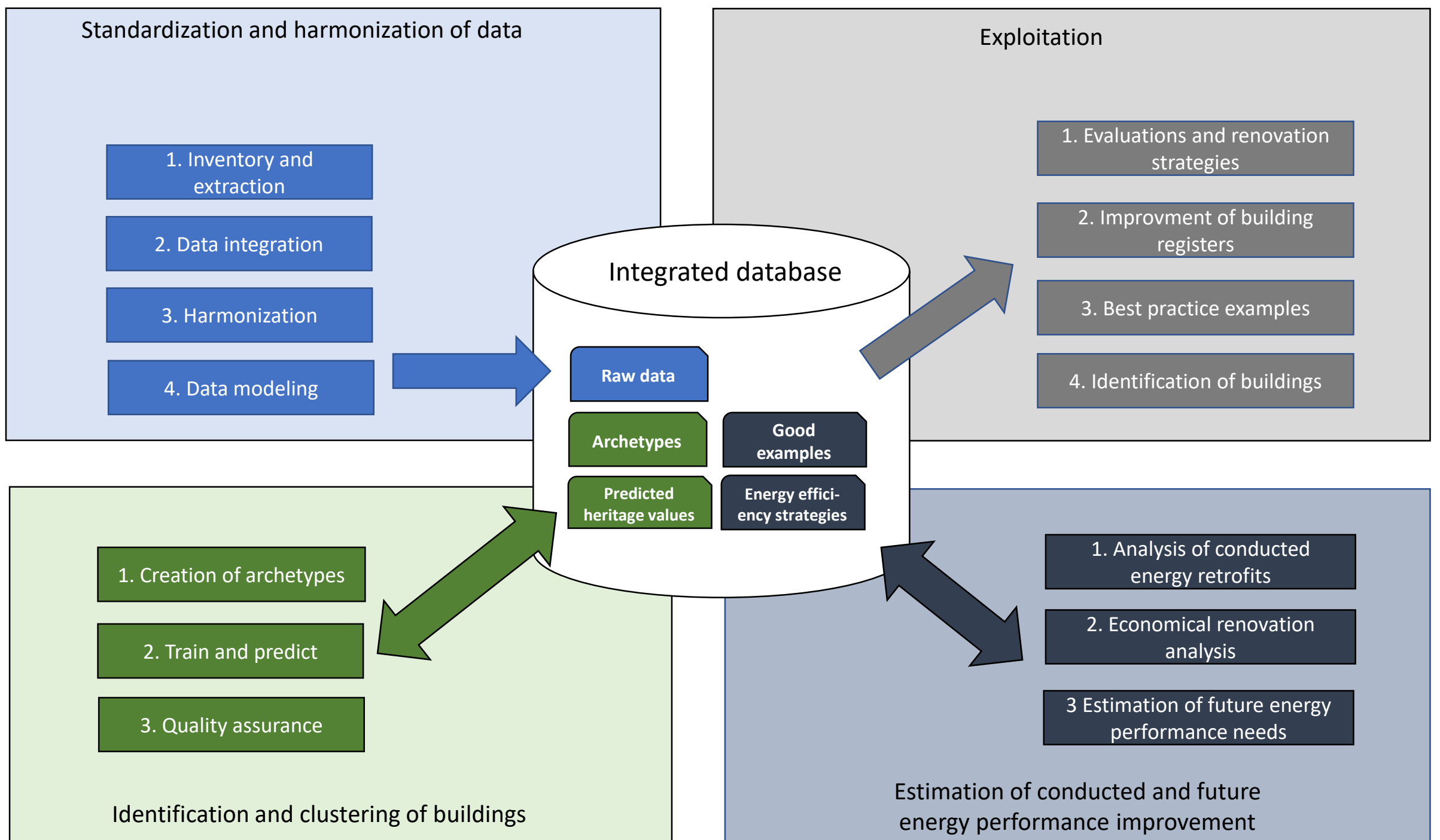


Transform

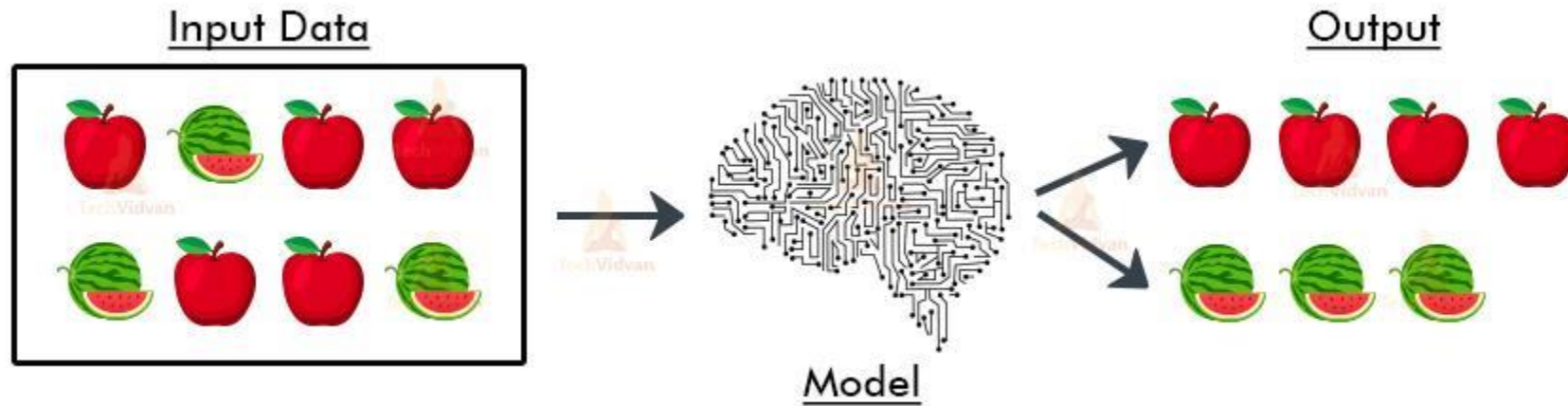


Load





Test unsupervised learning

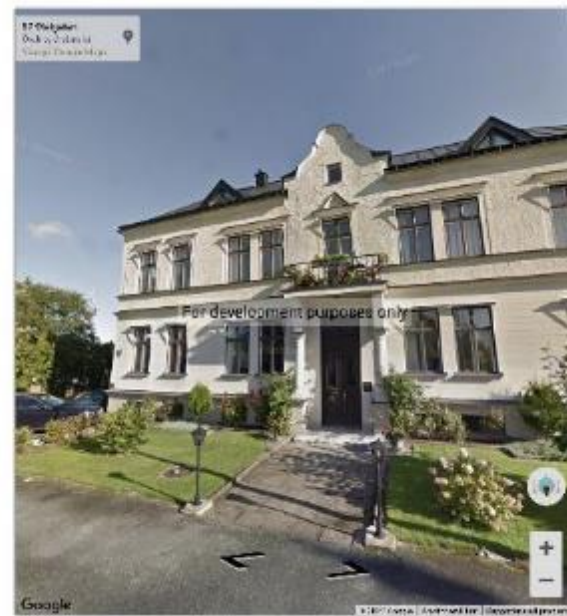




1570.html



1577.html



3.html



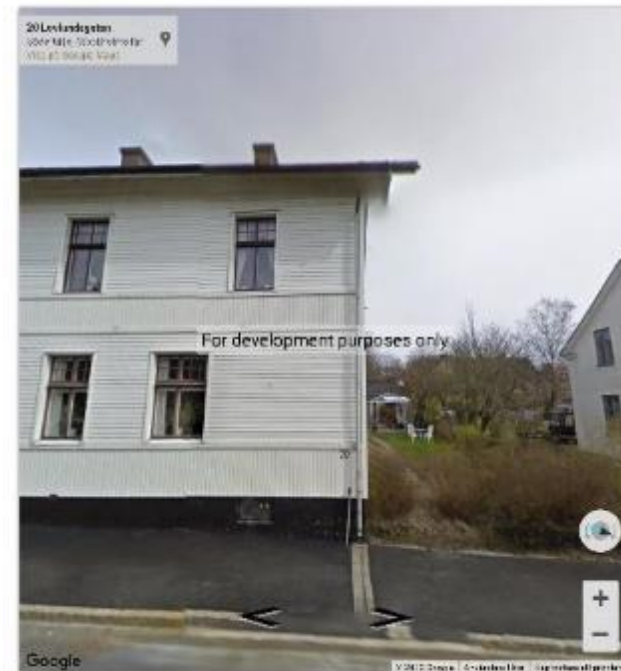
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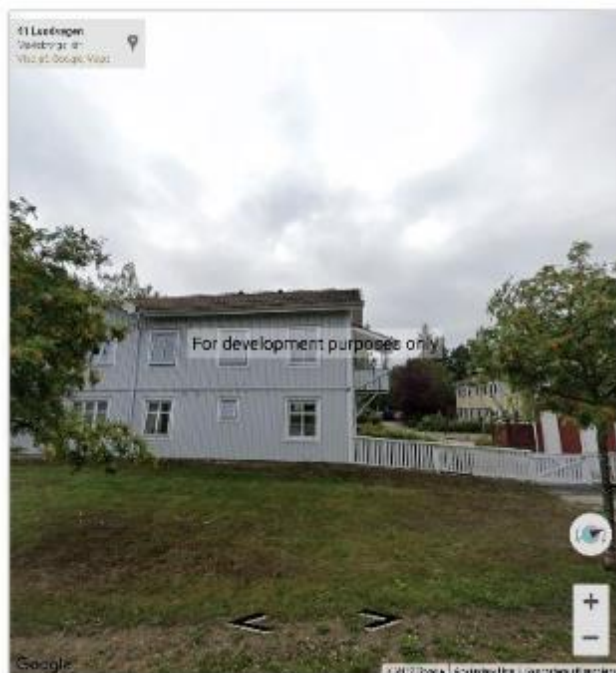
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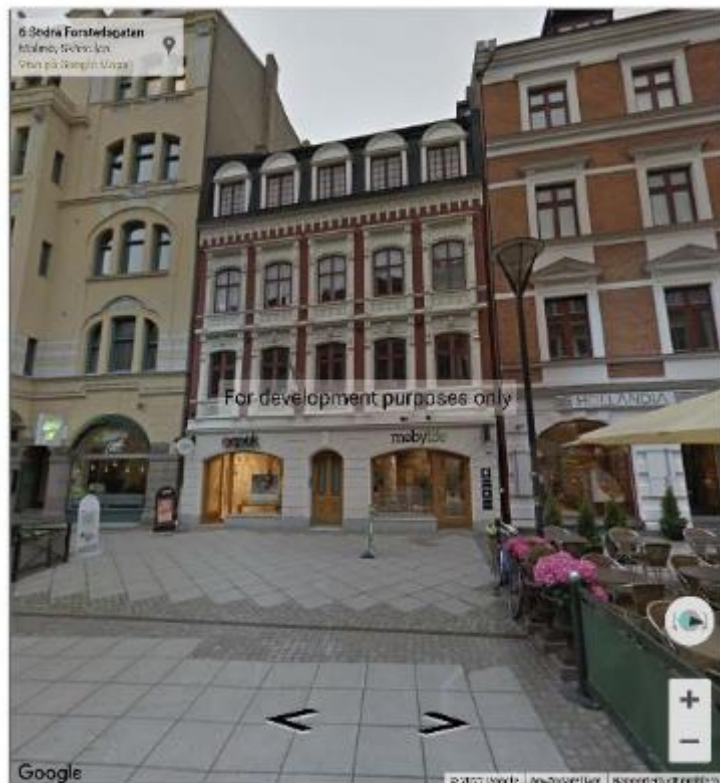


332.html

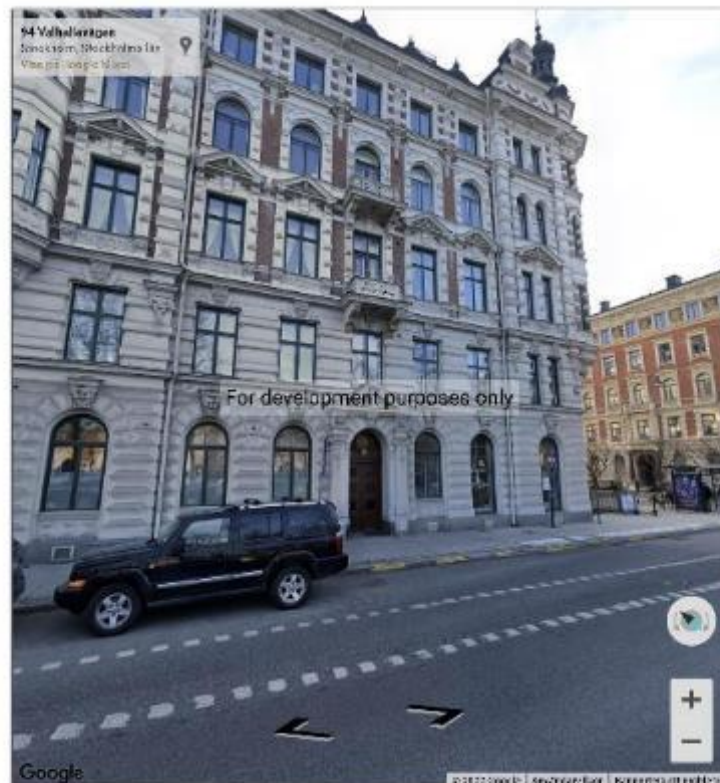


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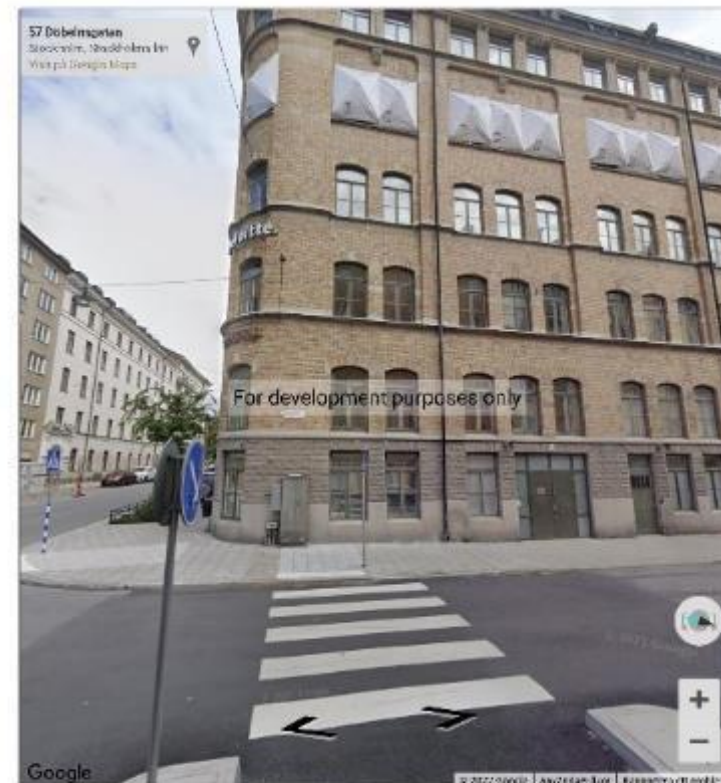




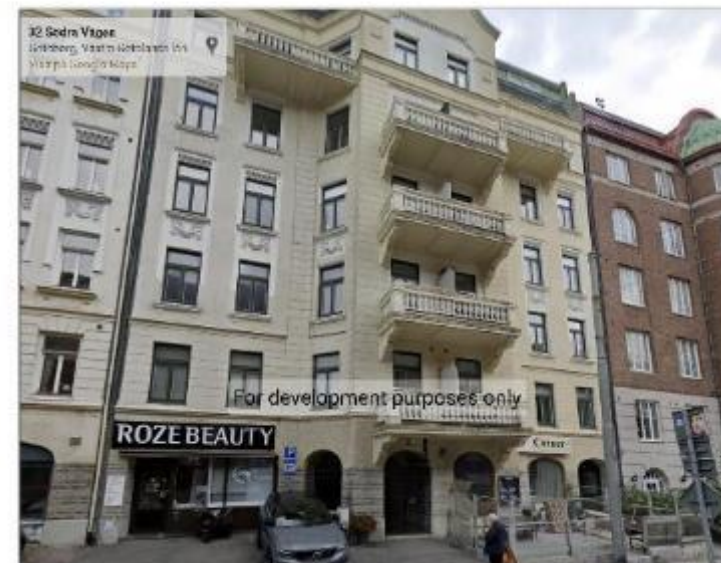
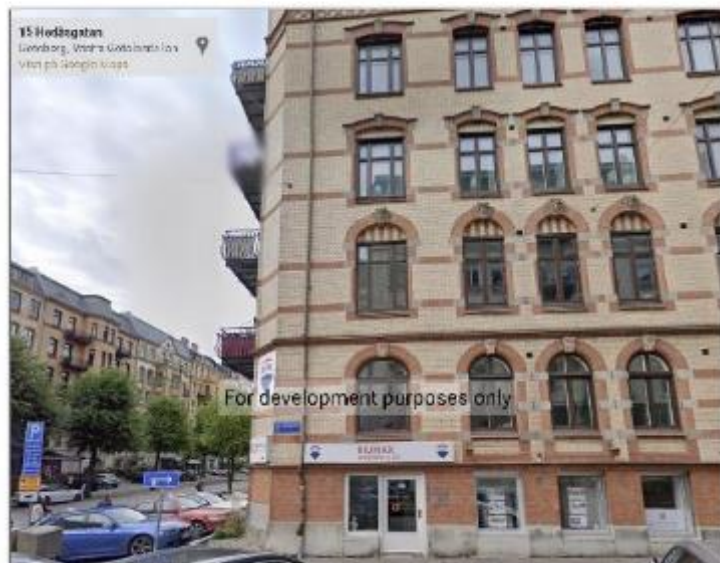
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261.html

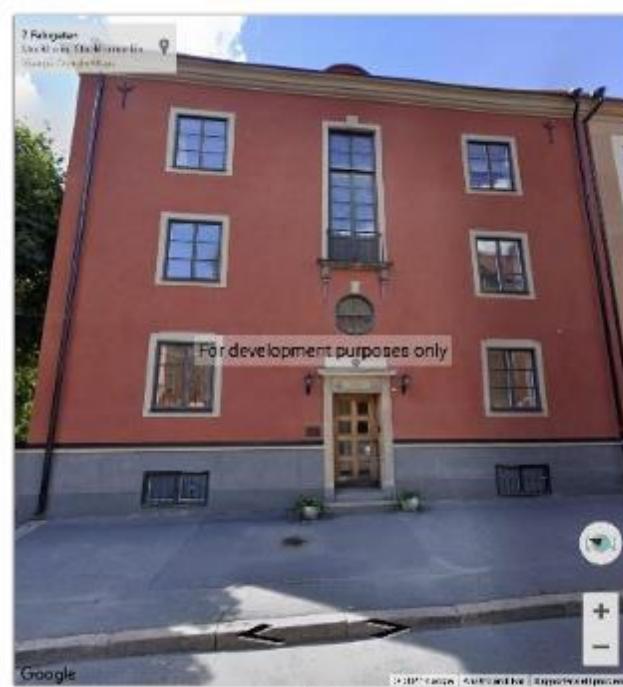


360.html

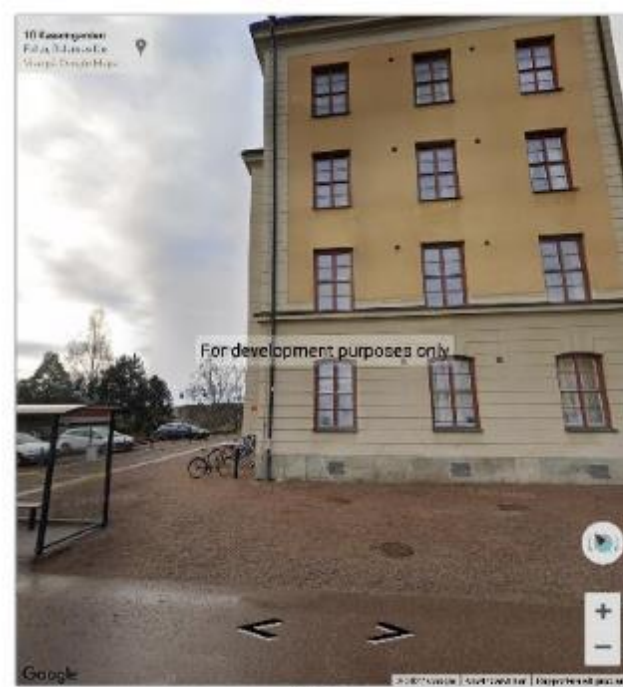




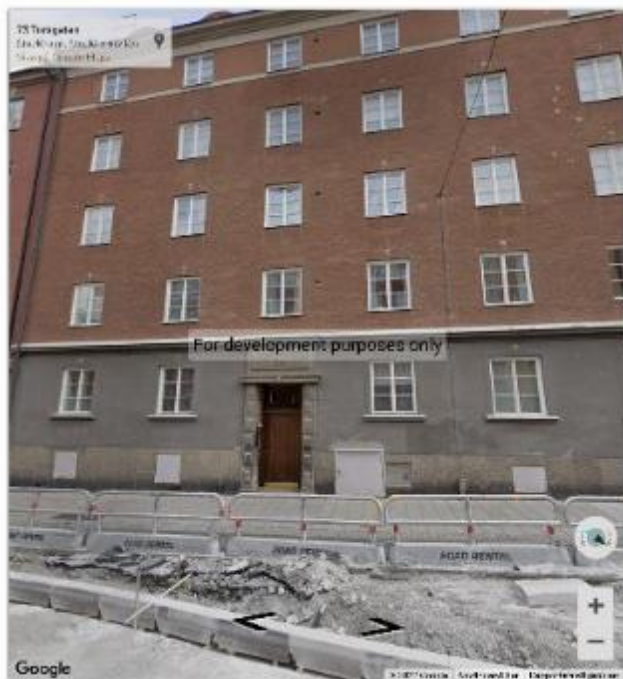
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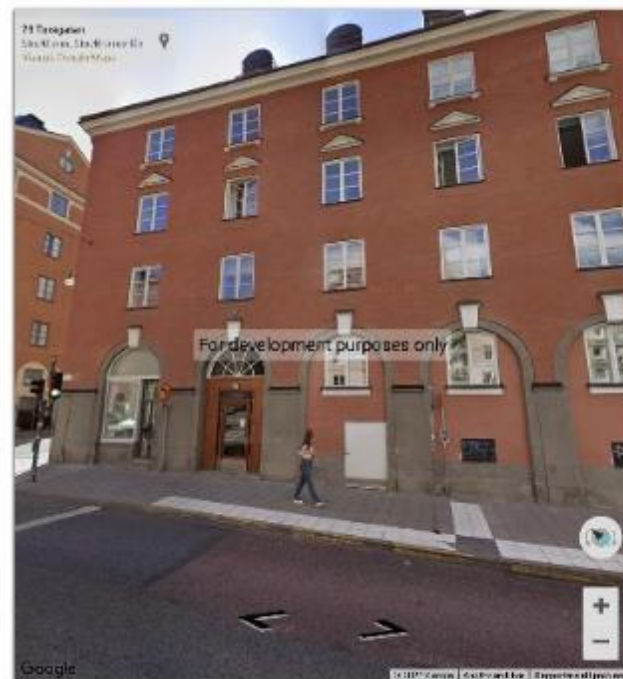
45.html



693.html



705.html



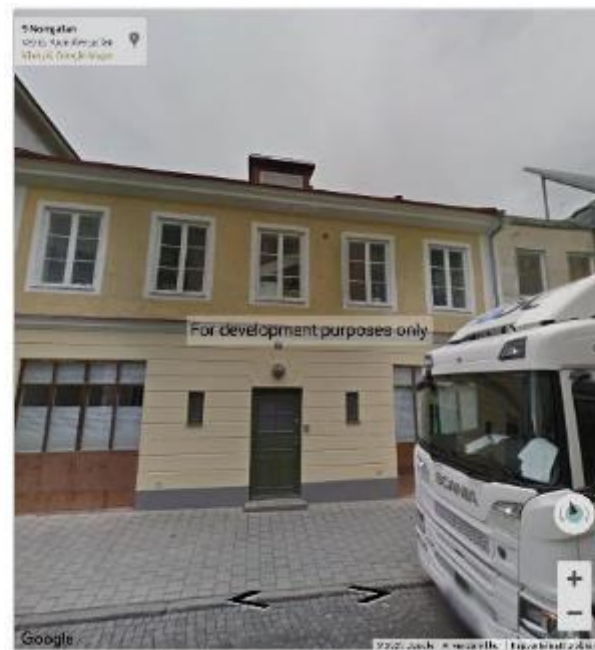
004.html



1287.html



1415.html



1627.html

