

DEMAND & SUPPLY HOUSING CONSTRUCTION MATERIALS 2020-2050

- BOB-MODEL BY TNO
- FORECAST NEW HOUSING CONSTRUCTION BY EIB

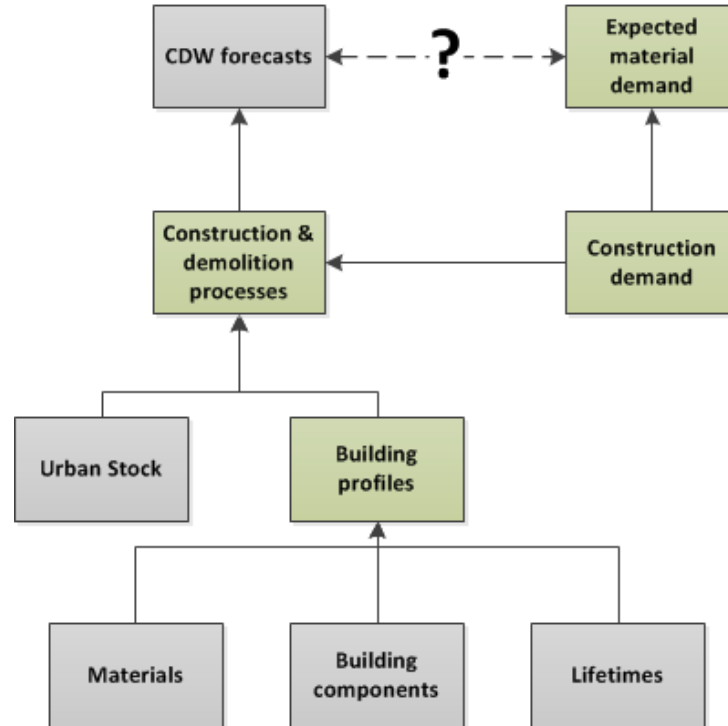
TNO innovation
for life

STEP-UP IN HOUSING CONSTRUCTION

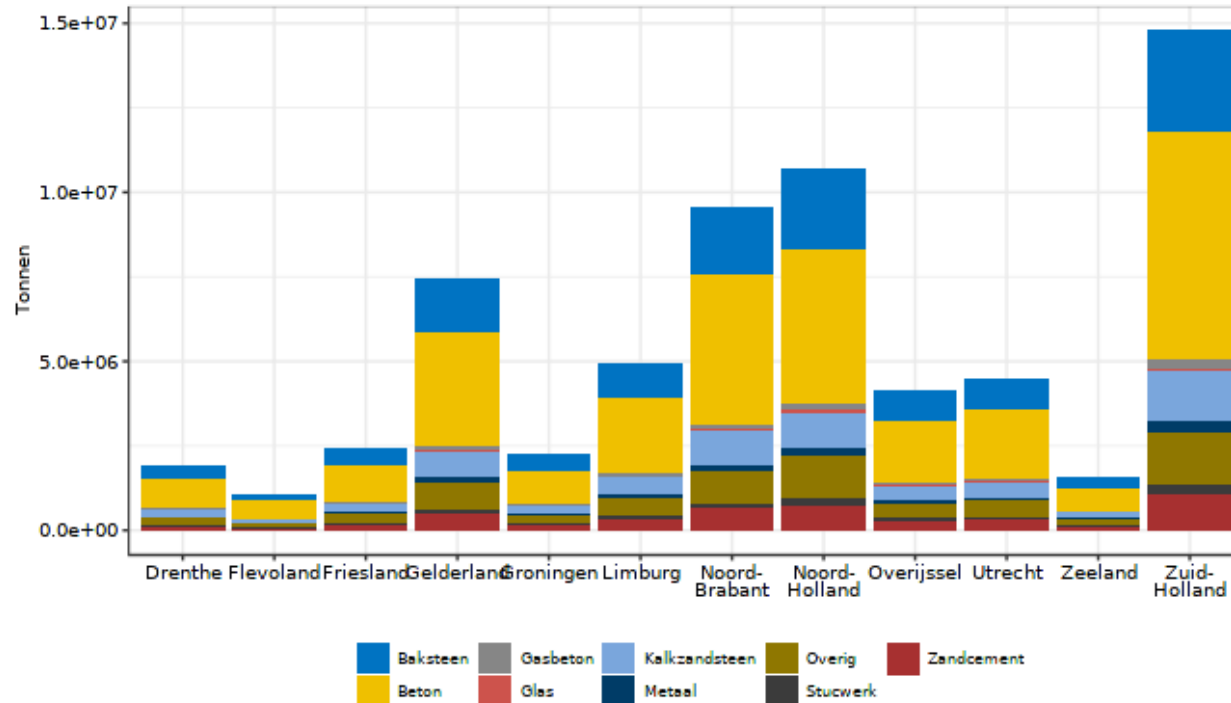
Reason for this model:

- › An applied contribution towards stepping-up of circularity in the housing construction sector;
- › Focus on optimal re-use of secondary building materials;
- › Reduction of CO₂ related to the use of building materials.

BOB-MODEL: PREDICTION SUPPLY & DEMAND OF BUILDING MATERIALS

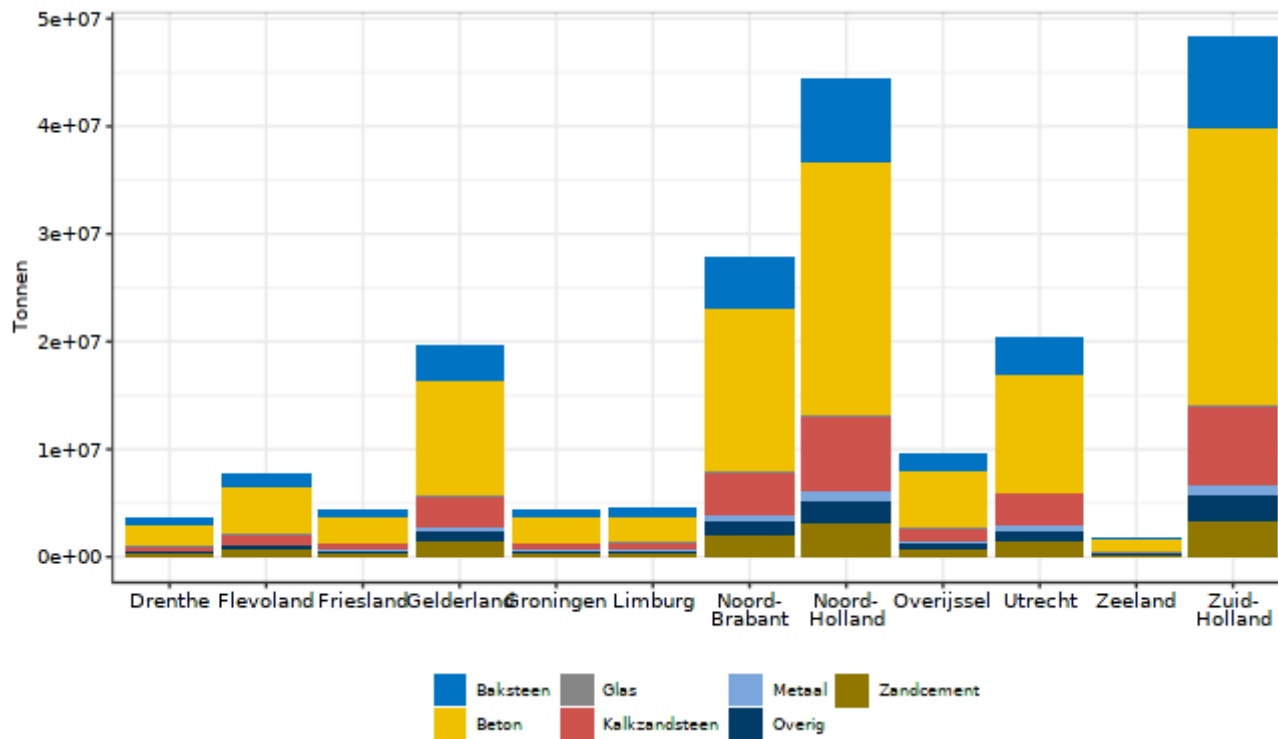


HOUSING CONSTRUCTION: SUPPLY OF SECONDARY MATERIALS BETWEEN 2020 AND 2050



HOUSING CONSTRUCTION: DEMAND FOR MATERIALS FOR NEWBUILD BETWEEN 2020 AND 2050

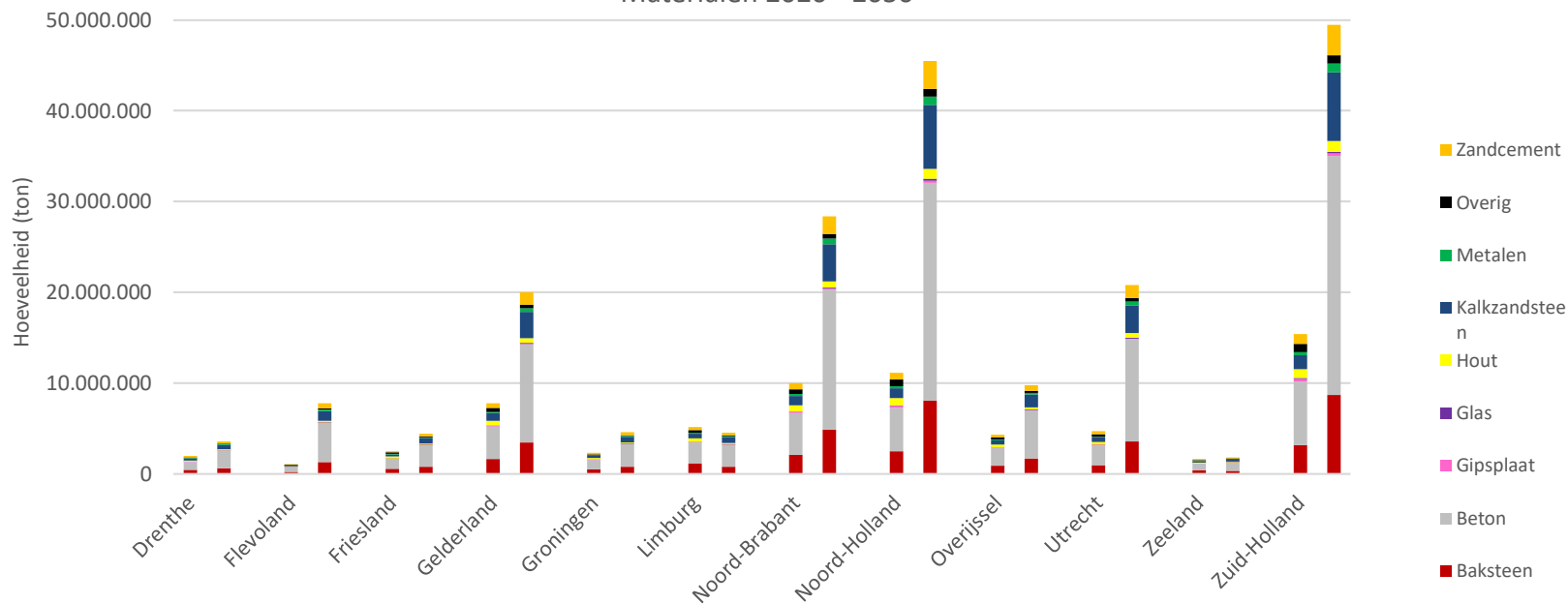
Bouwmaterialen in Nederland, in tonnen



SUPPLY VERSUS DEMAND PER PROVINCE

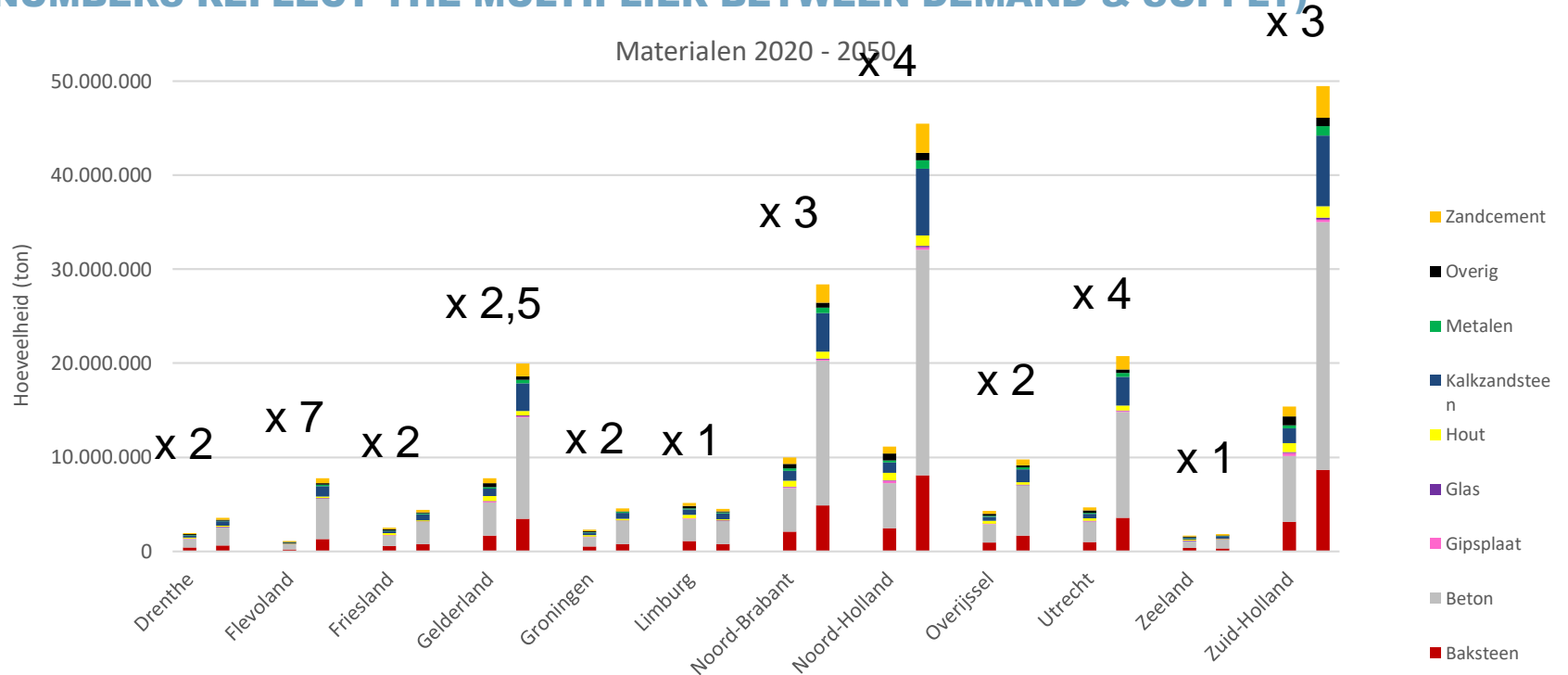
PER PROVINCE: LEFT BAR IS SUPPLY, RIGHT BAR IS DEMAND

Materialen 2020 - 2050



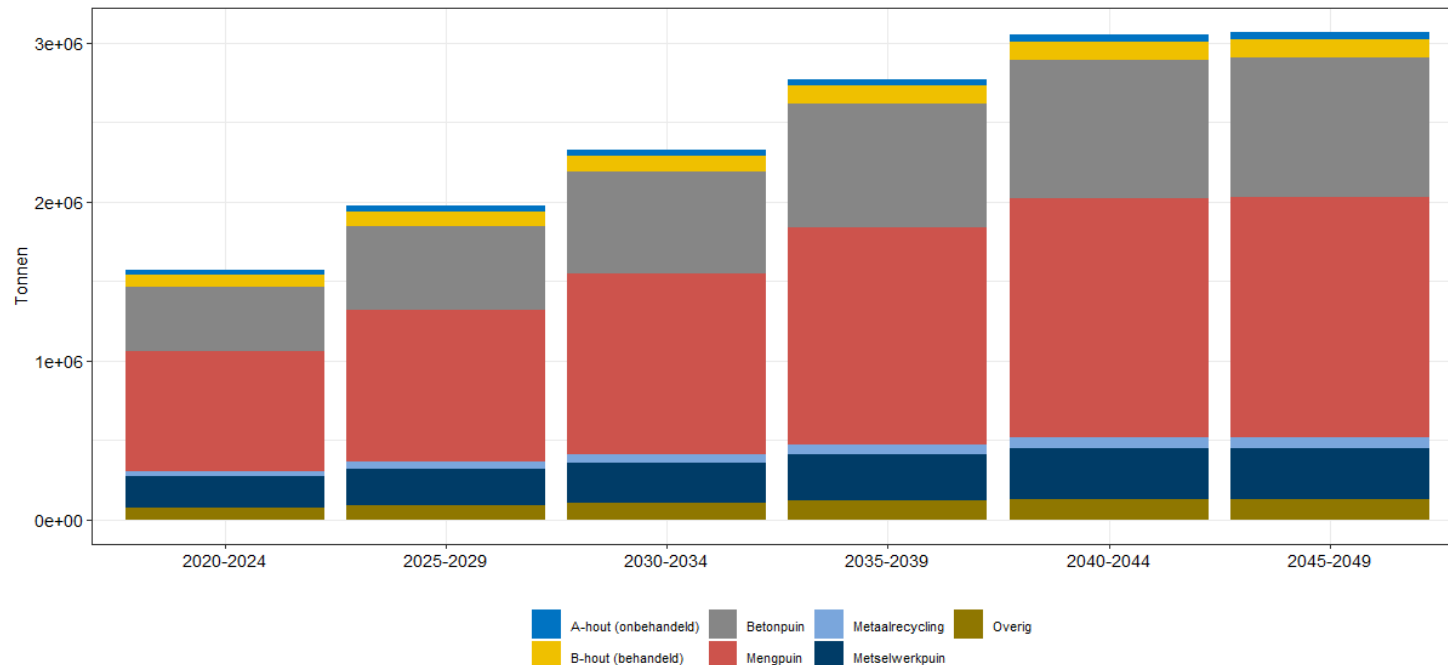
DEMAND MATERIALS PER PROVINCE

(NUMBERS REFLECT THE MULTIPLIER BETWEEN DEMAND & SUPPLY)

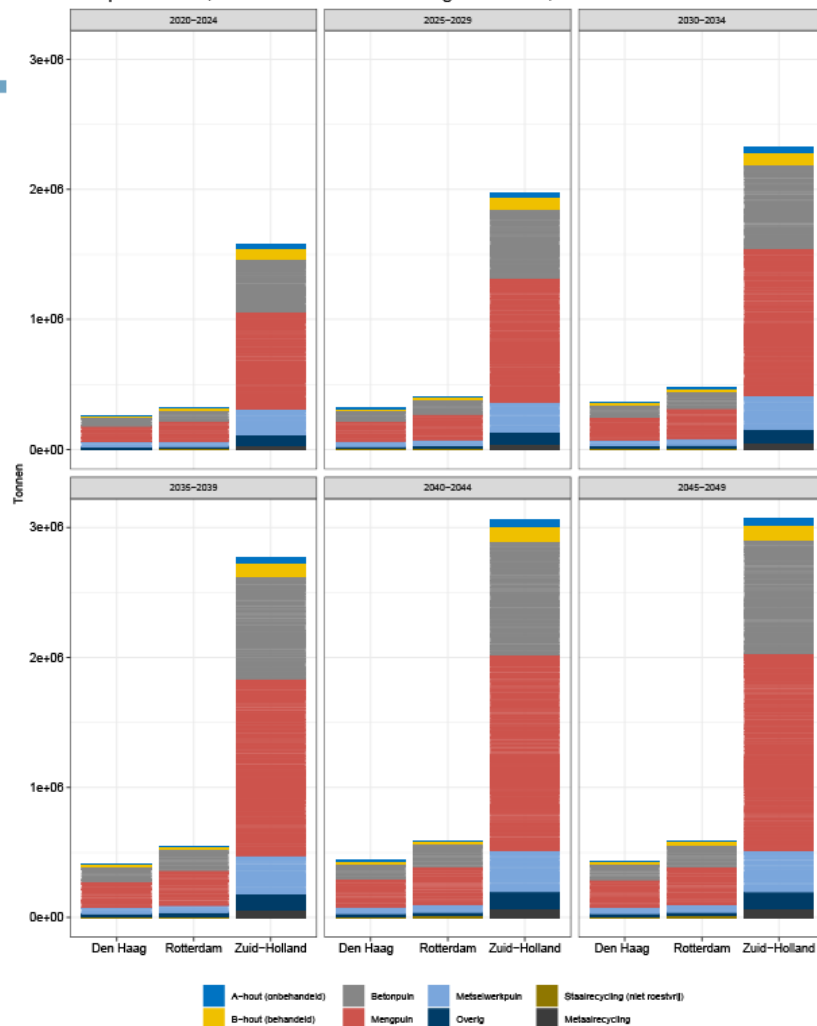


SUPPLY SECONDARY MATERIALS ZH 2020-2050

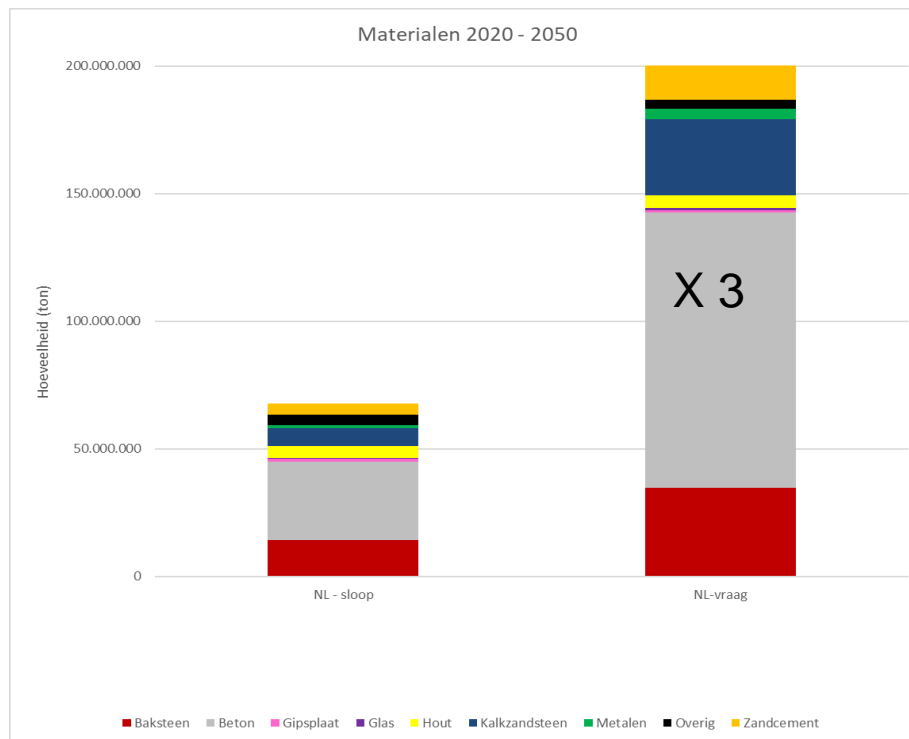
Secundair materiaal in Zuid-Holland, in tonnen



SUPPLY SECONDARY MATERIALS 2020-2050 FOR CITIES DEN HAAG, ROTTERDAM IN RELATION TO PROVINCE Z-H AS A WHOLE



HOUSING CONSTRUCTION: TOTAL SUPPLY (CDW) AND DEMAND FOR BUILDING MATERIALS IN THE NETHERLANDS BETWEEN 2020 EN 2050



CONCLUSIONS SUPPLY – DEMAND

- › Mismatch in most of our provinces and thus in NL
- › Need for Re-use and Re-cycling locally; but also necessary on a national level
- › Circular design & choice in materials important
- › Re-fuse is first R on the R-ladder
- › Need for different designs, building systems, solutions, materials, tender procedures, but also lifetime expansion!
- › Bio-based is upcoming → presentation Wouter Moorlag (TNO)



THANK YOU FOR YOUR ATTENTION

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